

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Main report and annexes

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

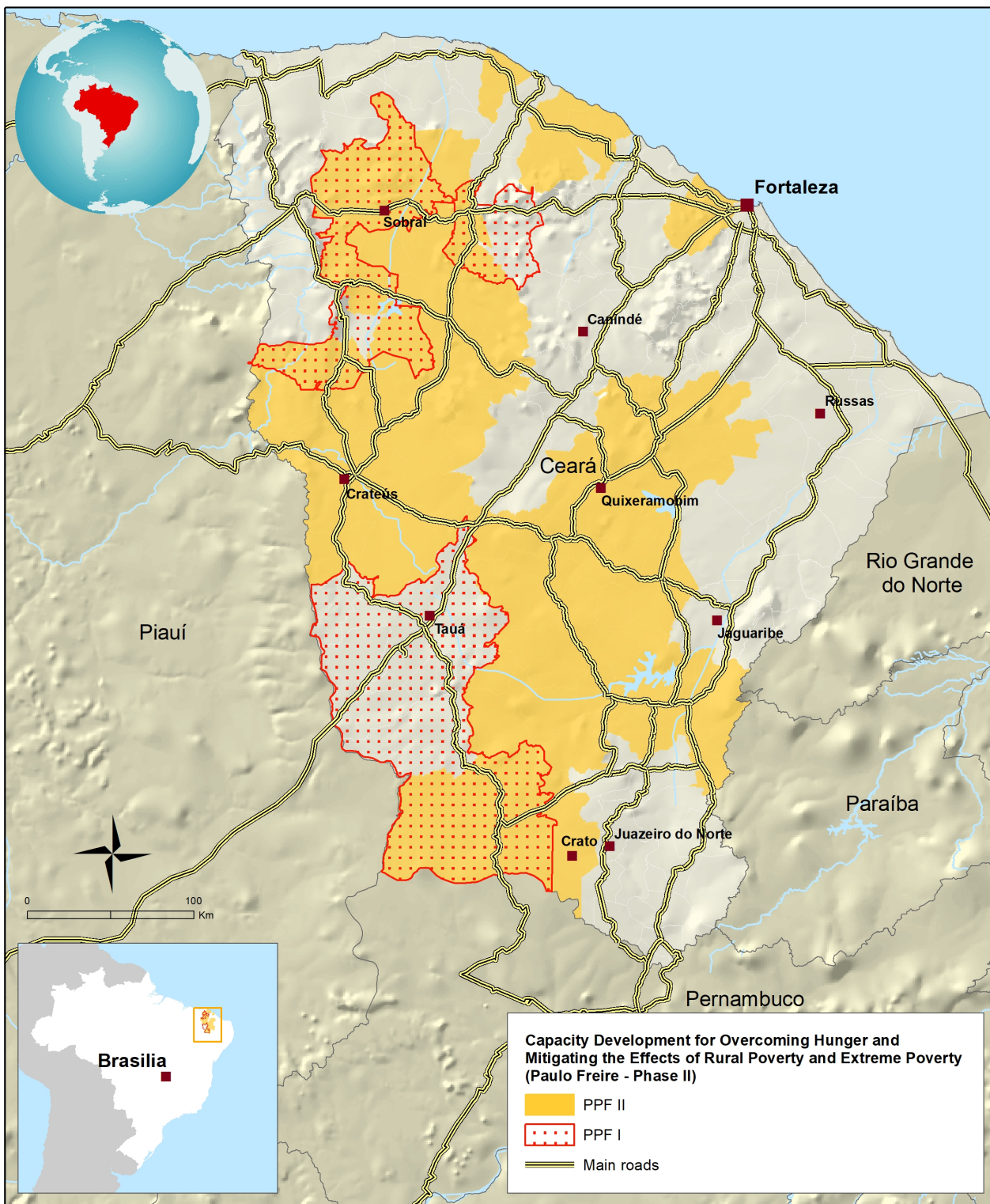
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Map of the Project Area



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Map compiled by IFAD | 11-04-2024

Abbreviations and Acronyms

ABC	Brazilian Cooperation Agency
AECID	Spanish Agency for International Development Cooperation
AKSAAM	Adapting Knowledge for Sustainable Agriculture and Access to Markets Project
ANATER	National Agency for Technical Assistance and Rural Extension
ATER	Technical Assistance and Rural Extension
AWPB	Annual Workplan and Budget
BMZ	Government of Germany
BNDES	Brazilian National Development Bank
BRAM	Borrowed Resource Access Mechanism
CAGECE	Ceará Water and Sewage Company
CAR	Rural Environmental Registry
CEF	Caixa Econômica Federal
CEFFA	Family Training Centers by Alternance
CGE	State Controller's Office
COAFI	Financial Administrative Coordination
COAGUA	Water Supply and Sewerage Coordination Office
CODIP	SDA Planning Coordination
COGERH	Water Resources Management Company
COI	Core Outcome Indicators
COSOP	IFAD's country strategy
DAKI-SV	Knowledge and Adaptation to Dry Areas Initiative Project
EGSIDB	Ivens Dias Branco School of Social Gastronomy
EMATERCE	Rural Extension Company of Ceará
EMBRAPA	Brazilian Agricultural Research Corporation
ESCMP	Environmental, Social, and Climate Management Plan
FFU	Family Farming Units
FPIC	Free, prior, and informed consent
GBV	Gender-Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GRM	Grievance Redress Mechanism
HDI	Human Development Index
IBRAF	Brazil-Africa Institute
ICP	IFAD Client Portal
ICT	Information and Communication Technologies
IDACE	Ceará Institute for Agrarian Development
IDB	Inter-American Development Bank
IFR	Interim Financial Reports
IICA	Inter-American Institute for Cooperation on Agriculture
INSA	National Semiarid Institute
IOC	National Social Security Institute
IPECE	Ceara Institute for Research and Economic Strategy
IRR	Internal Rate of Return
KM	Knowledge Management
LF	Logical Framework
LGBTQIAPN	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Aromantic/asexual, Polyamorous/Pansexual, Non-binary
MAPA	Ministry of Agriculture and Livestock
MCTI	Ministry of Science, Technology and Innovation
MDA	Ministry of Agrarian Development and Family Farming
MDS	Ministry of Social Development and Assistance, Family and Fight against Hunger
MPI	Multidimensional Poverty Index
MRE	Ministry of Foreign Affairs
MTR	Mid-Term Review Mission
NDB	National Development Bank
NPV	Net Present Value
NUS	Neglected and Underutilized Species

PAA	Food Acquisition Program
PAGES	Amazon Sustainable Management Project
PAN-Brasil	National Action Program to Combat Desertificatio
PCRCP	Planting Climate Resilience in Rural Communities of the North-east Project
PCT	Traditional Peoples and Communities
PDHC	Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil
PDR	Project Design Report
PDRL	Local Rural Development Plans
PENSAAN	Brazilian Food and Nutrition Sovereignty and Security Research Network
PGE/CE	Attorney General's Office of the State of Ceara
PIM	Project Implementation Manual
PLANAPO	National Plan for Agroecology and Organic Production
PMU	Project Management Unit
PNAE	Food Acquisition - PAA and School Feeding
PPA	Pluriannual Plan
PPF II	Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty
PROCASE II	Paraiba Rural Sustainable Development Project
PRONAF	National Program for Strengthening Family Farming
PRONATER	National Technical Assistance Program
PSA	Pro-Semiarid Project
PSI	Piauí Inclusive and Sustainable Project
QAG	Quality Assurance Committee
SAAE	Autonomous Water and Sewage Systems
SDA	Secretariat for Agrarian Development
SDG	United Nations Sustainable Development Goals
SECAP	Social, Environmental and Climate Safeguards
SEFAZ	State Secretariat of Finance
SEMA	Environment and Climate Change Department
SEMEAR	Knowledge Management Program for Semi-Arid Areas in Northeast Brazil
SEPLAG	Planning and Management Department
SIAFE	Single Treasury Account
SISAR	Integrated Rural Sanitation System
SSTC	South-South and Triangular Cooperation
STA	Specialized Technical Assistance
STF	Spanish Trust Fund for Food Security Co-financing
TA	Technical Assistance
TAS	Traditional Agricultural Systems
TCE	The State Court of Auditors
UNDF	United Nations Decade for Family Farming
VTA	Virtual Technical Assistance
WSS	Water Supply Systems

In line with IFAD mainstreaming commitments, the project has been validated as:

Be gender transformative Be youth sensitive Be nutrition sensitive Prioritize persons with disabilities Prioritize indigenous peoples Include climate finance Build adaptive capacity

Executive Summary

A. National context

In 2020, the Gross Domestic Product (GDP) of the state of Ceará was R\$ 166.915 billion and the GDP per capita was R\$ 18,168.35, 49% below the national average. Ceará's Human Development Index (HDI) was 0.682 in 2010, ranking 17th out of the 27 Brazilian states. Regarding income inequality, in 2019, the state's GINI index was 0.547, higher than the Northeast (0.531) and Brazil (0.509).

Ceará has an estimated population of 9,240,580 inhabitants. In 2017, there were 297,862 Family Farming Units (FFU) in the state, occupying 3 million hectares (48% of the agricultural area) and employing 686,473 people.

The proportion of people with some degree of multidimensional vulnerability in Ceará fell from 93.9% to 78.9% between 2008/09 and 2017/18 IPECE (2023). The proportion of people with some degree of poverty also fell, from 63.6% to 30.9% in the same period.

However, in the context of the COVID-19 pandemic, the health, economic and social situation in the state of Ceará has worsened. In 2020, with the reduction in emergency aid, the state's extreme poverty rate increased by 8.18%. In addition, between 2019 and 2020, there was a 5.4% increase in the state's unemployment rate.

In 2017, food insecurity affected 47% of families in Ceará. In 2022, the Brazilian Food and Nutrition Sovereignty and Security Research Network (PENSAAN) found that only 18.2% of families were food secure, a significantly lower proportion than the percentage attributed to the Northeast region (31.9%). According to Seinfra (2016), water supply reached 15% of the population in rural areas.

Only 11% of the FFU in the Project area received Technical Assistance and Rural Extension (ATER), and only 14% of this went to women. The limited scope of ATER is reflected in the low adoption of conservation practices.

Poverty

The Project area has a population of 2,400,605 people, 45% of whom live in poverty, while in Brazil 29.4% of the population is in poverty or extreme poverty. There are 178,143 agricultural establishments, of which 76.2% are family farms. Of the total number of FFU, 18.5% are run by women and 11.7% by young people under the age of 35.

Rationale for IFAD involvement

The strong partnership between IFAD, the Spanish Agency for International Development Cooperation (AECID) and the state of Ceará is based on a shared commitment to reducing poverty and increasing food security and nutrition, with special emphasis on the central role played by family farmers in local and national food systems. According to the Impact Assessment (IA), PPF I interventions resulted in a 23% reduction in the Multidimensional Poverty Index (MPI) among the group of beneficiaries and a 60% increase in family production. In addition, 70% of the beneficiaries of the ATER and investment plans accessed new public policies. PPF phase I was consistently considered among the best performers within IFAD's portfolio worldwide (ranking in the top 5 during its last three years of implementation).

PPF II will build on the lessons learned from the previous project (PPF I), which was also financed by IFAD and AECID under the Spanish Trust Fund for Food Security Co-financing (STF). As the PPF enters its second phase, the aim is not only to strengthen the solid foundations built in the previous phase and consolidate and scale up the successful experience, but also to strengthen aspects related to Knowledge Management (KM), South-South and Triangular Cooperation (SSTC) and policy dialogue. In addition, the new project will introduce innovations such as: i) scaling up and expanding social technology solutions for access to water, renewable energy and sanitation; ii) virtual technical assistance; iii) nutrition-sensitive interventions; iv) gender-transformative interventions; v) promotion of gender- and nutrition-sensitive environmental and climate education in rural schools; vi) support for land and environmental regularization, especially for PCT.

B. Description of the Project

Goal

The goal of PPF 2 is to reduce rural poverty, food insecurity and malnutrition in family farming.

Development objective

The Development Objective is to increase the sustainability of production systems and the resilience of family farmers.

Criteria for geographic areas of intervention:

The Project will cover 74 municipalities in the semiarid region of the state of Ceará. The selection of the municipalities is based on the Municipal Alert Index (IMA), developed by IPECE, which integrates 12 indicators to measure the vulnerability of municipalities in climatic, agricultural, and social assistance dimensions. The selection also considered that the areas of operation of the three IFAD interventions in Ceará - PPF II, Sertão Vivo and Projeto Dom Helder Câmara III - cover the entire semiarid region of the state and do not overlap.

Target groups

The population of the Project area is estimated at 2,400,605, of which 50.9% are women (1,271,632) and 23.7% are young people aged 15 to 29 (592,541). The population of the municipalities in the Project's area is among the poorest in Brazil (45% of people in poverty and extreme poverty), with limited access to basic social services, high levels of social, environmental, and climatic vulnerabilities, and high rates of food insecurity and malnutrition.

Direct targeting

Approximately 80,000 family farming families (around 320,000 people) will benefit directly from the Project, of which at least 50% will be represented by women, 15% by young people and 5% by Traditional Peoples and Communities (PCTs). The Project's main target groups are: i) family farmers living in poverty and extreme poverty; ii) rural women; iii) rural youth; iv) PCTs; and v) LGBTQIAPN+.

Components

Component 1 - Rural development with environmental sustainability based on agroecology

It aims to implement investments in family farming with high potential for improving income through development, diversification,

adaptation of production capacity and market access. Activities will be carried out to promote and encourage the adoption of agroecological practices, through ATER, as well as favoring the conservation and preservation of natural resources.

Component 2 - Access to water, sanitation, and social technologies

The aim of this component is to make investments in the areas of water, household sewage and renewable energy, at family or community level. Whether for community or family use, the investments will guarantee consistent and high-quality access to water for human consumption or agricultural production, as well as reducing soil and water contamination with waste produced in family units. Efficient water use practices and technologies will be systematically implemented to adapt to climate change.

Component 3 - Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semi-arid (INOVA CLIMA)

This component will be financed by a grant for technical assistance (TA) (100% AECID resources), which was approved separately by AECID and integrated into the project, and will aim to promote capacity building among family farmers and technical teams, foster environmental education to ensure food security and nutrition in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semi-arid environment. Replicable pilot projects will be developed, and exchanges organized, following the model of South-South and Triangular Cooperation (SSTC). It also aims to provide support to the PMU to strengthen the state's institutional capacity to implement PPF II and, in particular, the activities financed by Component 3.

Project costs and co-financing strategy

The total cost of the Project is 139 million euros (including the beneficiaries' contribution) and will be financed by four different sources: IFAD with a loan of 8 million euros (through the Borrowed Access Mechanism – BRAM), AECID with a loan of 92 million euros and a grant of 4 million euros, and the State Government of Ceará with a contribution of 25 million euros. The beneficiaries will contribute an estimated 10 million euros as a counterpart investment.

Risks

In the macroeconomic sphere, there is a substantial inherent risk and a moderate residual risk that the Project will have difficulty mobilizing the Ceará government's counterpart. However, the design period coincided with the preparation of the state's 2024-2027 Multiannual Plan, in which the Project is mentioned as a priority government action, guaranteeing budget provision for a counterpart.

D. Implementation

Organizational framework

The Secretariat for Agrarian Development (SDA) will be the Project's executing agency. The PMU will be housed in a specific location at the SDA, in Fortaleza, and will take on the Project's implementation, management and monitoring activities. To guarantee the Project's presence in the field, PPF II focal points will have physical spaces in the regional offices or outposts of the Technical Assistance and Rural Extension Company of Ceará (EMATERCE).

1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. In 2020, the Gross Domestic Product (GDP) of the state of Ceará was R\$ 166.915 billion and the GDP per capita was R\$ 18,168.35, 49% below the national average¹. Ceará's Human Development Index (HDI) was 0.682 in 2010, 17th out of the 27 Brazilian states. However, the Rural HDI was 0.575 in 2010, classified as low². Regarding income inequality, in 2019, the state's GINI index was 0.547, higher than the Northeast (0.531) and Brazil (0.509)³.
2. Ceará has an estimated population of 9,240,580 inhabitants⁴. In 2017, there were 297,862 Family Farming Units (FFU) in the state, occupying 3 million hectares (48% of the agricultural area) and employing 686,473 people.⁵
3. The proportion of people with some degree of multidimensional vulnerability in Ceará fell from 93.9% to 78.9% between 2008/09 and 2017/18 IPECE (2023). The proportion of people with some degree of poverty also fell, from 63.6% to 30.9% over the same period⁶. However, in the context of the COVID-19 pandemic, the health, economic and social situation in the state of Ceará has worsened. In 2020, with the reduction in emergency aid, the state's extreme poverty rate increased by 8.18%⁷. In addition, between 2019 and 2020, there was a 5.4% increase in the state's unemployment rate. Family farmers (FF) have been particularly affected by the restrictions imposed by the control of the pandemic, suffering reduced income, difficulties in selling their production and sustaining production processes, which has accentuated pre-existing structural inequalities⁸.
4. In 2017, food insecurity was affecting 47% of families in Ceará. During the pandemic (2022), the Brazilian Food and Nutrition Sovereignty and Security Research Network (PENSAAN) found that only 18.2% of Ceará households were food secure, a significantly lower proportion than the percentage attributed to the Northeast region (31.9%). At that time, 26.3% of Ceará households were going hungry, which represented 2.4 million people. Ceará was therefore the eighth state with the highest proportion of households living with severe food insecurity in Brazil.
5. The Paulo Freire II (PPF II) project area has a population of 2,499,605 people, 45% of whom live in poverty. There are 178,143 agricultural establishments, 76.2% of which are family-run. Of the total number of family units, 18.5% are run by women and 11.7% by young people under the age of 35.
6. According to Seinfra, (2016) water supply reached 15% of the population in rural areas⁹. The public sewage network covered 15% of the urban area of the municipalities in 2016, while in rural areas it was 0%. The percentage of municipalities with adequate waste collection in Ceará is 44%.
7. With limited access to Technical Assistance and Rural Extension (ATER), only 11% of the Family Farming Units (FFU) in the Project area received ATER and only 14% of this went to women¹⁰. Of the 22,677 FFU that received ATER, 88% received the service from the government, 7% contracted ATER services with their own resources and 3% received technical assistance from cooperatives. The limited scope of ATER is reflected in the low adoption of conservation practices.
8. At the federal level, the Project adheres to the following policies and programs: the Sectoral Plan for Adaptation and Low Carbon Emission in Agriculture and Livestock (ABC+), the National Policy to Combat Desertification, the National Action Program to Combat Desertification (PAN- Brasil), the National Program for Sustainable Soil and Water Management in Watersheds (Águas do Agro), the National Program for Technical Assistance and Rural Extension in Family Farming and Agrarian Reform (PRONATER), the National Program to Strengthen Family Farming (PRONAF), the Food Acquisition Program (PAA), the National School Feeding Program (PNAE), the Rural Development Program, the Cistern Program, the National Policy for the Sustainable Development of Traditional Peoples and Communities, the new Forest Code, the National Plan to Promote Chains of Socio-Biodiversity Products, the Water for All Program, the Internet for All Program and Connected Rural Communities.
9. The Ceará government's actions are structured around a set of strategic programs for Ceará 2050¹¹ with which the Project is aligned with its objectives. Among these programs are "Mais Valor no Campo", "Ativos Ambientais" and "Segurança hídrica no Semiárido". The Project's executing agency, the Secretariat for Agrarian Development (SDA), is implementing a series of measures targeting the rural population with the aim of improving production conditions, coexistence with the semi-arid region, access to water, improving food and nutritional security, generating work and income in rural areas, and supporting Traditional Peoples and Communities (PCTs). In particular, there is the Ceará Without Hunger (Ceará Sem Fome) Program, which currently supports 1,064 kitchens and distributes 100,144 meals a day to people in situations of severe food insecurity. These actions are linked to the Federal Government: the National Program for Strengthening Family Farming (PRONAF) and the National Technical Assistance Program (PRONATER), the PNAE, the PAA, the Safra Guarantee and the Cistern Program.¹²

b. Special aspects relating to IFAD's corporate mainstreaming priorities

10. The priorities listed refer to IFAD as well as AECID. The Project will adopt a youth-sensitive, nutrition-sensitive, gender transformative and climate-centered approach, as well as prioritizing indigenous peoples (See Annex 5 - SECAP Review Note). PPF II will contribute to strengthening the social inclusion of PCTs, women, youth and the LGBTQIAPN+ community, promoting their participation to increase their capacities and empowerment at different levels (details in section 2 Project Description, item C). The Project's activities consider the major climate challenges faced by the semi-arid region of Ceará, proposing solutions for adaptation and productive investments to increase the supply of healthy food in the municipalities.
11. **Nutrition.** As in the rest of the country, overweight and obesity are increasingly affecting adults and children, with a prevalence

of obesity of 28.2% in women over 18 and 21% in men. Despite the efforts of public policies to encourage appropriate breastfeeding practices, the prevalence of exclusive breastfeeding remains low at 45.8% nationwide. This inadequate practice has negative long-term impacts on health, including an increased risk of obesity and excess weight during childhood and adolescence. Micronutrient deficiencies, diseases and inadequate care practices lead to stunting, which still affected 8.2% of children in the state of Ceará in 2017¹³. The country's political and economic crisis and the global health crisis of COVID-19 have caused a significant loss of purchasing power, which, coupled with the drought affecting production in the region, has led to a significant increase in food insecurity, with 2.4 million people suffering from hunger in 2022¹⁴. The Project's activities aim to respond to these challenges, focusing on i) agricultural production, in particular with support for agroecological backyards which will aim to increase the availability of food for the most vulnerable families, ii) raising awareness of good nutrition and health practices (reproductive health, maternal health and child health), iii) raising awareness of food culture, the role of Neglected and Underutilized Species (NUS) in nutrition, and training in the processing of healthy local products to increase their daily consumption (cooking classes).

12. **Gender.** In Ceará, the Gender Disparity Index is 0.66, indicating that women are 34% less likely to have access to the same opportunities as men in the state¹⁵. These disparities are more pronounced in political empowerment and economic opportunities. Gender inequalities are manifested in rural areas in the devaluation of women's productive work and restrictions on their control and access to natural, social, and financial resources. Only 18.5% of family farms in the Project area are run by women¹⁶. Women's contributions often go unnoticed due to their absence from the formal labor market and non-monetized activities¹⁷. In addition, rural women face a double workload, as they are the main responsible for domestic and care work in families¹⁸. This limits their participation in training, access to technical assistance and education to improve their opportunities. In addition, only 8.7% of ATER services are targeted at women¹⁹. Furthermore, rural women in the Project area are impacted by the combined effects of regional, gender and ethnic- racial inequalities. Those who are part of PCTs face even greater obstacles, being the groups of women who experience the highest rates of food insecurity, poverty, low access to health services, education, credit, and participation in political life^{20,21}. In Ceará²² in 2021, 67% of women murdered in Brazil were black.²³ Due to these challenges, women in the Project area are migrating to urban areas.
13. **Rural Youth**²⁴. Among the main challenges faced by rural youth in the Project area are: i) lack of opportunities for decent work and income generation (with little diversification of agricultural and non-agricultural activities that attract young people), ii) lack of access to and control over resources, credit, bio-inputs, goods and adapted technologies, and iii) low participation and decision-making power in rural and community organizations. Around 25% of young people in Ceará are considered vulnerable to poverty, the majority being men and women of African descent²⁵. Rural areas in general do not offer attractive work opportunities for young people, as they combine low income generation capacity and precarious working conditions. In this scenario of poverty, rural youth who enter working age face difficulties in building their life project in rural areas and seek better conditions in urban centers. Comparing the last two Agricultural Censuses, the number of heads of family farms in the semi-arid region of Ceará under the age of 35²⁶ fell by 9.7% between 2006 and 2017. The lack of public policies that focus on the demands and needs of rural youth is among the main causes of rural youth emigration. Factors that influence young people to stay in rural areas for working in family farming are financial resources and access to training, appreciation of the rural lifestyle, availability of services and conditions that offer the possibility of success in agricultural production²⁷. In the Project area, only 11.7% of family farms are managed by young people under the age of 35 and only 10% of young people in this age group have access to ATER²⁸. In addition, young people face extremely limited access to credit²⁹. Another limiting factor is the low level of mechanization in family systems, making productive work harder and less attractive to youth.
14. **Traditional Peoples and Communities**³⁰(PCTs) and **Afro-descendants.** Indigenous peoples and traditional communities, such as quilombolas³¹, are particularly vulnerable due to the historical dynamics of exclusion and structural racism³², the high dependence on natural resources, the marginalization of their ways of life, exclusion from the formulation of public policies and poor access to services, including health, education, sanitation, infrastructure, social assistance and ATER services³³. 76.6% of indigenous peoples and 71.9% of quilombolas in the Project area live in poverty or extreme poverty³⁴. Extreme poverty affects indigenous people six times more than the rest of the Brazilian population³⁵. The Quilombola Nutrition Call (2006) found that garbage was not collected in 71% of Quilombola homes, almost half of them (45.8%) had open sewage, 35.9% of the communities did not have treated water and 15% of children under the age of 5 were short for their age, expressing severe malnutrition³⁶. These communities are mainly dedicated to subsistence farming, complemented by non-timber forest products collection and artisanal fishing. The identity of indigenous peoples and quilombola communities is intrinsically linked to their collective territory, and they have distinct cultural practices in the management of natural resources. Thus, the recognition and regulation of Quilombola lands is a key demand of this group.
15. **LGBTQIAPN+.** The lack of government data on the socio-economic and political challenges faced by the LGBTQIAPN+ community indicates the statistical invisibility and marginalization of this group. The lack of a social assistance policy, the rural exodus of the population to urban centers, the lack of family support, limited access to income and low employability in rural areas, and the difficulty of staying in the school environment due to prejudice, are some of the main challenges of the LGBTQIAPN+ population in rural areas. Between 2000 and 2022, 5,635 people died in Brazil due to gender-related violence and intolerance³⁷. Most deaths occurred among young people aged between 20 and 29 and the Northeast region had the highest absolute number of violent deaths due to sexual orientation.
16. **Mitigation and adaptation to climate change.** The main threats of climate change in the Project area are the concentration and irregularity of rainfall, rising temperatures and more frequent, longer, and more severe droughts. The Caatinga biome is the

most vulnerable to climate change in South America, exposed to an increase in temperature of 2 to 4° C by the end of the 21st century³⁸. The climate risks are soil degradation, desertification, reduced availability of natural resources, especially fresh water, and loss of biodiversity. In the Brazilian semi-arid region, approximately 200,000 km² (1,262 municipalities) are highly susceptible to desertification and around 6.8 million people live in climate stress conditions (out of a total of 27 million). Water scarcity is one of the most important challenges for agricultural production. PPF II aims to increase the adaptive capacity of family farmers to face the challenges posed by climate change. To this end, it will invest in and support the adoption of agroecological practices that increase the resilience of production systems, such as the diversification and integration of production systems; the implementation of agroforestry systems for the recovery of degraded areas, agrobiodiversity and ecosystem services; soil management and integrated pest management; preparation and use of bio-inputs; conservation, reintroduction of creole seeds and local breeds; among other activities. The Project will also invest in social technologies for renewable energy, sanitation, water reuse, capture, treatment, and storage. The majority of PPF II funds will be dedicated to activities with great potential for carbon sequestration, such as agroforestry systems, agroecological practices, recovery of degraded areas and access to water for production, resulting in a reduction in fires and an increase in vegetation cover and soil carbon.

17. **Environment.** The semi-arid region of the Northeast faces structural challenges regarding the sustainability of its food production systems. These challenges, compounded by the adverse effects of climate change, such as prolonged droughts, prevent their sustainable development. This leads to soil and water degradation, loss of biodiversity, and environmental damage, ultimately contributing to desertification. Unsustainable agricultural practices are the main drivers of native vegetation and biodiversity loss, with more than 100,000 km² of forests in the region converted between 1985 and 2020³⁹. This is exacerbated by the overexploitation of the Caatinga for firewood, hunting, fishing, and the introduction of exotic species of plants and animals⁴⁰. Water is a significant limiting factor for food production. Relative water scarcity results from temporally concentrated low rainfall (600-1000 mm/year), recurrent droughts, overexploitation and pollution of groundwater, as well as salinity challenges in some areas. In addition, access to rural sanitation through the Autonomous Water and Sewage Systems (SAAE's) reaches only 34 municipalities in the state and serves only 26% of the rural population in these localities⁴¹.

c. Rationale for IFAD involvement

18. **Partnership with AECID and IFAD and scaling up: an evolving agenda with Ceará State.** The strong partnership between IFAD, AECID and the state of Ceará is based on a shared commitment to reducing poverty and increasing food security and nutrition, with special emphasis on the central role played by family farmers in local and national food systems. According to the Impact Assessment (IA), the PPF I interventions⁴⁴ resulted in a 23% reduction in the Multidimensional Poverty Index (MPI) among the group of beneficiaries, a 60% increase in family production. In addition, 70% of the beneficiaries of the ATER and investment plans accessed new public policies⁴⁵. PPF phase I was consistently considered among the best performers within IFAD's portfolio worldwide (ranking in the top 5 during its last three years of implementation).
19. PPF II will build on the lessons learned from the previous project (PPF I), which was also financed by IFAD and AECID under the Spanish Trust Fund for Food Security Cofinancing (STF). As the PPF enters its second phase, the aim is not only to strengthen the solid foundations built in the previous phase and consolidate and scale up the successful experience, but also to strengthen aspects related to Knowledge Management (KM), South-South and Triangular Cooperation (SSTC) and policy dialogue. In addition, the new project will introduce innovations such as: i) scaling up and expanding social technology solutions for access to water, renewable energy and sanitation; ii) virtual technical assistance; iii) nutrition-sensitive interventions; iv) gender-transformative interventions; v) promotion of gender- and nutrition-sensitive environmental and climate education in rural schools; vi) support for land and environmental regularization, especially for PCT.
20. The Project also extends and deepens IFAD's partnership with AECID in Brazil through the Framework Co-financing Agreement between Spain and IFAD, signed on September 22, 2020. In addition, it will represent the first direct credit operation between Spain and Brazil, thus opening the window of opportunity for other future collaborations between IFAD and AECID in the country. 41. The Project is consistent with the Memorandum of Understanding between AECID and the Brazilian Cooperation Agency (ABC) of the Ministry of Foreign Affairs (MRE), signed on August 14, 2014, since rural development is one of the main axes of technical cooperation to be deepened between Spain and Brazil.
21. **IFAD Programmatic approach in Brazil:** IFAD is developing a programme in Northeast Brazil totalling around USD 1 billion⁴⁶ by leveraging cofinancing from various partners for diverse levels of intervention. These interventions range from i) state-level (PSI in Piauí, PROCASE II in Paraíba, PPF II in Ceará, Parceiros da Mata in Bahia and PAGES in Maranhão); ii) regional through PCR/P/Sertão Vivo, IFAD's first project with a national development bank (NDB), with cofinancing from the Brazilian Development Bank (BNDES) and the Green Climate Fund (GCF); iii) federal (at regional level) with PDHC III mainly with technical assistance and policy dialogue; and iv) local innovative climate and biodiversity actions (PAGES and CompensACTION). This array of projects means that IFAD has become a major "assembler of finance", channelling resources from partners such as BNDES, GCF, Inter-American Development Bank (IDB), the Spanish Cooperation Agency (AECID), the German Government (BMZ) and from the state and federal government in the form of counterpart financing. See Additional Annex L: IFAD Brazil program map. In future, more partnerships are expected and the country team is working to expand and consolidate this programmatic approach making IFAD a key player in rural development in the country.
22. **IFAD operations in Ceará - reaching scale:** with the PPF II Project, IFAD will have three simultaneous interventions in the state of Ceará. The state was one of the four selected for the implementation of the PCR/P (Sertão Vivo) with the BNDES/GCF, while the PDHC phase III (federal) with the Ministry of Agrarian Development and Family Farming (MDA) will also operate in Ceará. This will allow for exceptional coverage and coordination, reaching almost the entire state, providing

opportunities of synergies and scaling up of activities and impact. For example, each of the three projects will have opportunity to exchange learning and knowledge in terms of technical assistance modalities and agroecological approaches.

23. Due to the success of the PPF in the first phase, the Inter-American Development Bank (IDB) had several talks with IFAD about co-financing phase II, but IFAD's excellent collaboration with AECID in Brazil led to the decision to go ahead with the project with AECID instead of IDB. Also because IFAD already cofinances three projects with IDB in Brazil so diversification of partnership is important.
24. **Development problem.** The semiarid region of the state of Ceará is among the poorest in the country and faces high rates of food insecurity and malnutrition, with family farmers and PCTs being disproportionately affected. The proportion of the population living in poverty and extreme poverty in the Project area is significantly higher than in the rest of Brazil. While, nationally, 29.4% of the population is in poverty or extreme poverty, in the Project area this proportion exceeds 45%⁴⁷. Currently, more than 1.1 million people live in poverty or extreme poverty in the PPF II area. Among indigenous people, poverty reaches 76.6% and among quilombolas, 71.9%⁴⁸. Regarding food insecurity, 2.4 million people were hungry in 2022 (severe food insecurity)⁴⁹. The main causes of food insecurity and malnutrition in the Project area are the decline in quality and limited access to water for human consumption and food production, low productivity and limited productive diversification, low quality of food consumed and lack of food and nutrition education.
25. Family farming production systems apply limited diversification and sustainable intensification practices, resulting in low productivity and reduced resilience, which significantly affects the degradation of natural resources and the income of rural families. This vulnerability is accentuated by several factors: i) a climate change context marked by increasingly frequent extreme events, such as droughts; ii) part of the population in poverty and extreme poverty lives in family farming establishments and works in small, degraded areas; iii) the growing dependence on inadequate external inputs further increases vulnerability and reduces resilience; iv) challenges in accessing public policies and programs due to lack of information, documentation and insufficient participation by local public bodies; v) the fact that most families have never received ATER services; and vi) agricultural establishments with low access to machinery and equipment adapted to family farming.
26. The rural environment is unable to retain young people who, lacking economic and educational opportunities, migrate to urban centers. Rural women suffer from discrimination, systemic racism, and structural poverty, despite their crucial role in agrifood systems, in sustaining family farming and in family nutrition and food security. The PCTs, in particular women, face even greater obstacles to fully exercising their rights, accessing public policies, and participating in decision-making in their territories, being those who face the greatest degrees of poverty and food insecurity and malnutrition. Existing data for the LGBTQIAPN+ community indicates migration to urban centers, difficulty in staying in the school environment due to prejudice, limited income, and employment opportunities in rural areas, and that the Northeast region has the highest number of violent deaths of LGBTQIAPN+ people.
27. In the semiarid region of Ceará, 75% of family farmers have access to water resources and 73% of family agricultural units have cisterns. However, in the state's semiarid region, 147,000 families still do not have cisterns for human consumption. The lack of sanitation and drinking water causes diarrhea, leading to malnutrition. Furthermore, in Ceará, only 44% of waste is disposed of properly⁵⁰.
28. The main threats of climate change in the Project area are the concentration and irregularity of rainfall, rising temperatures and more frequent, longer, and more severe droughts. The Caatinga biome is the most vulnerable to climate change in South America. The climate risks are soil degradation, desertification, reduced availability of natural resources, especially fresh water, and loss of biodiversity. The conditions of water scarcity, to which farmers are systematically subjected, are one of the most important challenges for agricultural production, leading to the exacerbation of pre-existing socio-economic vulnerabilities, such as farmers' indebtedness, poverty, malnutrition, the spread of disease and rural exodus.
29. **IFAD's comparative advantage.** IFAD is widely recognized as a strategic partner of the Ceará state government for its experience, knowledge, and action in the inclusive and sustainable transformation of Brazil's semiarid region. Its comparative advantage is based on i) successful models of targeting rural communities in poverty and vulnerability and differentiated approaches to priority groups such as youth, women, PCTs, quilombolas and indigenous peoples; ii) providing a wide range of proven and innovative solutions to improve the productive capacities and climate resilience of family farmers; iii) continuous technical assistance involving public and private entities for the promotion of resilient agroecological practices, including the adoption of digital technologies; iv) investing in social technologies with proven effectiveness for access to water, sanitation and renewable energies suited to the conditions of vulnerable communities in the semiarid region; v) innovative approaches with private partners and NGOs to bring marketing innovations to cooperatives, including the use of digital technologies, and to add value and valorise sustainable products from the semiarid region; and vi) IFAD has been recognized in Brazil for its work and focus on mainstreaming themes, especially in the area of youth, nutrition, gender and climate finance. IFAD will apply this experience to PPF II to support the adoption of sustainable and resilient production practices that promote environmental conservation, food security and nutrition, and income generation, while reducing rural poverty. In addition, IFAD's Office in Salvador is widely recognized for its performance in project identification, design, supervision, and partnerships as demonstrated in this phase II.
30. **AECID's comparative advantage.** AECID was an important partner for the PPF in phase 1 and for the Dom Helder Câmara Project (PDHC) in phase II. In addition, AECID financed grant projects that leveraged the area of knowledge management and SSTC in Brazil, mainly through the SEMEAR Project (*Knowledge Management Program in the Semiarid Areas of Northeast Brazil*). AECID's integrated action in Latin America, especially on the themes of Afro-descendants, cooperation for indigenous peoples and the environment and climate change, makes it a key partner. The AECID Training Center in Montevideo, Uruguay, will make a significant contribution in the areas of South-South and Triangular Cooperation. AECID will contribute a large part of the Project's funding (almost 70%) in addition to a donation.

B. Lessons learned

31. PPF I's **high-quality ATER**⁵¹ and its participatory approach were essential to meeting the real needs and demands of the beneficiaries, maximizing the project's impact and ensuring greater sustainability. In addition to addressing technical issues and the organization of the beneficiaries, ATER enabled the community associations to render their accounts in a simplified way by digital means, with a state system called e-Parcerias. This was supported by ATER and its field technicians, as well as by the PMU. This measure accelerated the process of managing the agreements with rural organizations, and this approach will be maintained in the second phase, in addition to a bigger capacity-building process for the ATER teams.
32. The experience with **remote ATER** pilots in PPF I was successful and there are reports of a robust strategy for using remote communication tools to talk to farmers (WhatsApp groups, live broadcasts, and lives, organizing virtual meetings, creating, and broadcasting radio content). This will form an important basis for developing new activities with PPF II. IFAD has developed studies regarding remote ATER services with the experience in Brazil⁵².
33. The adoption of the **agroecological approach** by family farming has been widely recognized in Ceará and with the work of PPF I. It has been proven to increase resilience, especially in highly degraded and vulnerable biomes such as the semi-arid region. Agroecology is a holistic approach that promotes a set of agricultural practices, including diversification, utilization, and restoration of ecosystem services. In addition, it promotes efficiency and recycling, reducing dependence on external inputs. Agroecology mitigates the risks of climate change and guarantees a greater variety of nutritious food. It also promotes the creation of knowledge and practices, which has also been shown to result in more effective adoption of innovations and practices adapted to the context, the environment and the needs and realities of families and communities. Agroecology integrates social aspects by prioritizing equitable access to resources, empowering local communities, fostering participatory decision-making processes, and promoting the development of resilient local (and external) market systems within agricultural ecosystems⁵³. The Stocktake Report on Agroecology in IFAD Operations concludes that the high incorporation of agroecology in Latin America is mainly due to IFAD's portfolio in Brazil: from the 8 projects considered as agroecologically-based, 6 are from the North-East of Brazil portfolio, where IFAD has consistently supported the government and invested in communities shifting to agroecological practices for the management of farms and landscapes. Remarkably these projects contributed to innovative ways of connecting producers to markets, e.g. through public procurement or through linkages with local tourist services rediscovering and serving local food. The Pro-Semi-arid Project (PSA) in Bahia represents a key reference of a fully agroecological project.
34. The PPF I experience offers different lessons for the **inclusion of young people**. These include: i) the strengthening of "youth" agendas through the media and communication techniques; and ii) the Semi-arid Youth Communicators Network as a space for youth participation in social and political debates, and the promotion of public policies for rural youth. PPF II will be able to strengthen and expand initiatives by young communicators and the dynamics of the Semi-arid Youth Network. The virtual surveys carried out in PPF I, using free digital tools, can be strategic in different contexts, complementing the M&E system, by using them to gather data on specific issues.
35. **Knowledge management (KM)** should be planned in advance to record and document good practices and extract lessons that will inform improvements in the work process during project implementation. IFAD grant projects such as SEMEAR, which was also funded by AECID, and then SEMEAR International⁵⁴, paved the way in this area and were succeeded by initiatives such as AKSAAM⁵⁵, DAKI-SV⁵⁶ and INNOVA-AF⁵⁷, which played an essential role in developing the capacities of PMU teams mainly in KM, SSTC, monitoring and evaluation (M&E), policy dialog as well as the introduction of innovations and new lines of activities in the area of climate resilient agriculture, among others. The experience gained and the materials produced will be the starting point for PPF II to develop KM products for sharing, disseminating and scaling up the project's learnings and good practices.
36. **The IFAD Office in Salvador (BA)** plays a fundamental role in project identification, design, supervision, and implementation support, and was key to a successful implementation of PPF phase I. This support ensured that the dialog with the Government of Ceará continued at the highest level and made it possible to prepare phase II in good conditions. It was also key to establish IFAD's partnership network in Brazil. It had a decisive role in the alliance with AECID. The continuous and systematic support of a permanent network of IFAD specialists (consultants) in the country in various areas was fundamental to ensuring the success of PPF I and the design of phase II and is widely recognized by the partners and the Government of Ceará (other Lessons Learned in Annex C).
37. **Solid implementation entity:** The Secretariat for Agrarian Development (SDA) plays a central role in family farming policies in Ceará and in access to federal public policies. Having the support of and dialog with the SDA is key to the project's success. The SDA's prioritization of poverty reduction and the priorities of IFAD and AECID mean that the Project's objectives are aligned. Choosing staff with commitment and capacity (as is currently the case with the SDA) is a key factor in ensuring the Project's success.
38. **Financial management:** lessons learned based on the PPF I experience include: (i) prioritize the selection and signing of agreements with entities providing ATER in the initial phase with clauses on disbursements aligned with the implementation of activities and clear reporting requirements incorporated; (ii) implementing a complementary automated reporting system to generate budget versus actual reports by component, category and source of funding and Interim Financial Reports (IFRs) based on data from the SIAFI-CE system to avoid human errors and delays in reporting; and (iii) establish and document clear criteria for recording and evaluating government counterpart funding in the PIM (other Lessons Learned in Annex C).
39. **Start-up and implementation capacity:** The PPF I suffered from start-up delays which affected its performance in the initial

years of project. Lessons learnt are: i) appointment of a competent project coordinator through selection process and with experience in project operations; ii) solid partnership with various spheres of the Government beyond the executing agency and especially the office of the Governor; iii) engagement with civil society organizations and other partners in the field which demand the project implementation; iv) avoid detailed diagnosis and situation analysis of communities which can take months to complete so this work needs to be more focused and straightforward; v) initiate preparation of major procurement process before project enters into force such as preparation of terms of references; vi) careful plan the start-up workshop and only when PMU is complete so that it is more efficient; and vii) ensure complete PMU soon after the project enters into force.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

40. **The goal** of PPF II is to reduce rural poverty, food insecurity and malnutrition in family farming. **The Development Objective** is to increase the sustainability of production systems and the resilience of family farmers.
41. **Project area.** The Project will cover **74 municipalities in the semi-arid region**⁵⁸ of the state of Ceará. The population of the Project area is estimated at 2,499,605, of which 50.9% are women (1,271,632) and 23.7% are young people aged between 15 and 29 (592,541)⁵⁹. There are also 10,437 quilombolas living in the Project region, of which only 19% (2,033 people) live in titled quilombola territories. 36,492 indigenous people live in the Project area, of which only 6,842 live on indigenous lands (or 18.7%). There are 178,143 agricultural establishments in the Project area, of which 135,702 (or 76.2%) are family farms. Of the total number of family farms, 25,122 (or 18.5%) are managed by women and 15,879 (or 11.7%) by young people under the age of 35⁶⁰. The population of the municipalities in the Project's area of intervention is among the poorest in Brazil (45% or 1,123,322 people in poverty and extreme poverty)⁶¹, with limited access to basic social services, high levels of social, environmental, and climatic vulnerabilities and high rates of food insecurity and malnutrition (with 2.4 million people suffering from hunger in 2022)⁶².
42. **Geographical targeting.** The selection of the municipalities is based on the Municipal Alert Index (IMA)⁶³, developed by IPECE, which integrates 12 indicators to measure the vulnerability of municipalities in climate, agricultural and social assistance dimension. The selection also considered the objective that the areas of operation of the three IFAD interventions in Ceará - PPF II, Sertão Vivo and Projeto Dom Helder Câmara III - cover the entire semi-arid region of the state and do not overlap. The area selected combines new areas with some territories from the previous phase, which will serve as a reference for replicating experiences and consolidating results.
43. **Target group.** Approximately **80,000 family farming** (around 320,000 people) will benefit directly from the Project, of which at least 50% will be represented by women, 15% by young people and 5% by Traditional Peoples and Communities (PCTs). The Project's main target groups are: i) family farmers living in poverty and extreme poverty; ii) rural women; iii) rural youth; iv) PCTs; and v) LGBTQIAPN+.
44. **Family farmers.** This is the Project's main and largest target group due to their high levels of poverty and extreme poverty, as well as food insecurity and malnutrition. The subsistence of this group is based on low-productivity family farming, mainly ensuring self-consumption with the sale of surpluses and some cases of activities exclusively for sale, extractive practices, and small animal husbandry. Agrarian Reform settlers will be a priority target sub-group. Among the socio-economic vulnerabilities of this target sub-group are: i) insecurity regarding land ownership, since not all of them have been granted land titles; ii) lack of access to ATER; and iii) precarious access to public policies on credit, education, security, health, and housing, among others. The Project will work with family farmers to promote agroecological production systems to increase diversification, climate resilience, restoration of environmental services, production and income.
45. **Gender equality and the empowerment of rural women.** Women will represent at least 50% of the total beneficiaries (40,000 families with activities focused on women). With the aim of reducing the gender gap in the target population, the Project will develop activities aimed at including women, in particular female-headed households, PCT women and young women. Based on the concept that women have a high capacity to change their own reality, to reject imposed patterns and to resist environmental limitations, the Project will promote a holistic approach to transforming gender relations and empowerment. This approach considers the environmental, economic, political and cultural causes of the social vulnerability of rural women in the semi-arid region. Based on the lessons learned and good practices of the Brazilian portfolio, PPF II will: i) promote economic empowerment and equal access to and control over resources and goods, ii) foster changes in the dynamics of the sexual division of labor, addressing the female overload caused by the combination of productive and reproductive work, iii) increase and strengthen the participation of women's groups and associations; and iv) contribute to the expansion of decision-making spaces for female participation in rural institutions and organizations. To achieve these objectives, the Project will use technical assistance and training methodologies, including Agroecological Logbooks (ALs) as an important tool for measuring, valuing, and giving visibility to women's fundamental contributions to the family economy, as well as to community development, promoting women's self-esteem and confirming their important contribution to a healthy, diversified, and safe family diet. Through the introduction of social technologies (ST), especially those related to access to water, the aim will be to reduce the difficulties of women's work. Women's participation in Project activities will be facilitated through the organization of childcare services, leadership training and the promotion of women's decision-making roles at community or organizational level. In addition, the introduction of ST, such as renewable energy and water harvesting, which will improve domestic sanitation, hygiene and nutritional diversity, will constitute to gender equality. Women's workload will be reduced, mainly by using time-saving ST related to access to water. Gender training for beneficiary communities and awareness-raising

on preventing and combating gender-based violence are planned. Gender parity and diversity will also be sought in the PMU and field staff, and all ATER professionals will receive gender sensitization.

46. **Inclusion of rural youth.** Young people between the ages of 15 and 29 will represent at least 15% of the Project's total beneficiaries (12,000 families with activities focused on young people), half of whom must be women. The target subgroups will be: i) young people who are involved in agricultural or non-agricultural activities, with an interest in expanding their activities or undertaking them individually and/or collectively in associative organizations and cooperatives; ii) young people who want to implement productive Projects, agricultural or non-agricultural, but find it difficult to make themselves heard and represented in family decisions; iii) young people from indigenous peoples and traditional communities; and iv) young students from Family Training Centers by Alternance (CEFFAs)⁶⁴ and similar institutions, leveraging the experiences of the pedagogy of alternance in the multiplication of good practices of contextualized education, productive inclusion and income generation for rural youth. The Project will take an integrated approach to tackling the root causes of youth exclusion, using successful approaches from other IFAD-supported Projects in Brazil. Examples of these approaches are i) supporting the involvement of young people in the adoption of practices, approaches and techniques based on the principles of agroecology and coexistence with the semiarid region, which encourage the sustainable use and management of natural resources; ii) creating new income-generating opportunities; iii) promoting social skills and involvement in processes of social transformation in the territories; iv) training young leaders; v) training young people in decision-making at community, territorial and organizational level; vi) technical assistance services adapted to the different needs of young people and incorporating them into their teams, especially those who have graduated from CEFFAs and similar institutions; vii) youth caravans and festivals; viii) the Young Communicators program to involve this group in social communication activities; and ix) support for rural youth networks.
47. **Traditional Peoples and Communities (PCTs)⁶⁵** will represent at least 5% of the total beneficiaries (4,000 families) and women and young people from these communities will be targeted as sub-groups. The Project will implement IFAD's Policy on Indigenous Peoples (2022)⁶⁶ with its focus on the empowerment of traditional communities (PCTs). PPF II will adopt free, prior, and informed consent (FPIC) for activities involving PCTs, considering IFAD's previous experience. This will be approached considering the multidimensionality of the territories of the PCTs, oriented towards the governance and sustainable collective management of their territories, ethnodevelopment, the sustainability of their food systems, the conservation and use of biodiversity and agrobiodiversity based on traditional knowledge, as well as access to markets for the promotion of cultural identity. The ATER approach will consider these socio-cultural aspects, traditional knowledge, and ways of life, and all ATER technicians will receive training in race and ethnicity. The PCTs will also benefit from greater access to water, access to renewable energy and sanitation through adapted social technologies that improve their living conditions and will be prioritized when receiving productive investments. The Project will also contribute to the valorization and dissemination of traditional knowledge related to production (Traditional Agricultural Systems - TAS) and nutrition, through participatory nutritional education activities.
48. **Inclusion of the LGBTQIAPN+ community.** PPF II will seek to include the LGBTQIAPN+ community in its activities, considering LGBTQIAPN+ diversity, to promote their inclusion and guarantee respect for their rights. It will seek to implement IFAD's Diversity, Equity, and Inclusion Strategy (2021)⁶⁷. Initially, the Project will map LGBTQIAPN+ movements and hold consultations to hear their main demands. Based on the diagnosis and consultations, a strategy for the social inclusion of this group will be defined. Awareness-raising campaigns on the rights of the LGBTQIAPN+ community and against LGBTphobia will be promoted, the Project will support the development of Knowledge Management products for training in schools that address the issue of sexual and gender diversity, and LGBTQIAPN+ movements in the Project area will be supported (see details of activities and linkage with the PPF II operations in Annex K – Gender, Youth and Social Inclusion, especially subsection Strategy for LGBTQIAPN+ inclusion).
49. **Social targeting.** The main criterion for direct social targeting will be that at least 70% of the beneficiary families have the profile of the CadÚnico (poverty and extreme poverty) or are registered in state social programs, such as *Ceará Sem Fome* and *Mais Infância Ceará*, which have a targeting aligned with that of IFAD and work with families in situations of poverty and food insecurity. The remaining 30% must be family farmers whose livelihoods are based on low- productivity family farming.
50. A combination of self-targeting and direct targeting mechanisms will be developed to ensure that vulnerable groups have access to the Project's activities and investments. PPF II will promote the empowerment of women and youth and the inclusion of marginalized groups by addressing the underlying causes of unequal power relations, discriminatory practices, norms, attitudes, and behaviors.
51. **Empowerment and capacity-building measures.** PPF II will provide differentiated ATER to those groups historically excluded from public policies, facilitating their access to them, encouraging more active participation by the target groups in the Project's activities and in decision- making processes at the family, association, community, and territorial levels.
52. **Self-focusing measures.** The services provided by the Project will respond specifically to the priorities, strengths and working capacity of the target groups. Income-generating activities will be planned with the participation of the target groups themselves, considering their needs and livelihood difficulties, and which they consider relevant and within their reach.
53. **Facilitating measures.** Through awareness-raising activities and policy dialogue, PPF II will support the promotion of sustainable and socially equitable development. The Project's technical assistance bodies will receive training focusing on gender, generation, race/ethnicity, nutrition, and climate resilience. Dialogue will also be fostered to influence i) public actions and policies in relation to investments in family farmers, youth, women and PCTs; ii) advocating approaches in favor of the most vulnerable rural populations, gender equality, youth empowerment and the LGBTQIAPN+ community; and iii) conducting policy studies on aspects of social inclusion, ensuring research agendas that address issues of relevance to farmers in poverty, women, youth, PCTs and the LGBTQIAPN+ community.

54. Other targeting measures are detailed in Annex 8 - PIM.

D. Components/outcomes and activities

Component 1: Rural development with environmental sustainability based on agroecology

55. It aims to implement investments in family farming with high potential for improving income through development, diversification and adaptation of production capacity and market access. Activities will be carried out to promote and encourage the adoption of agroecological practices, through ATER, favoring the conservation and preservation of natural resources.
56. At a territorial level, the Project will work with Local Rural Development Plans (PDRL⁶⁸) with investments in productive development, restoration and environmental sustainability. These PDRL will be elaborate and implement in collaboration with producer families and with the support of ATER. This ATER will be contracted by the PMU and provided by NGOs, with a focus on sustainable productive and organizational development at community and family level. The Project will also organize training events to raise awareness of public policies at state and federal level. These events are designed to promote access to these public policies, thereby facilitating access to credit and trading on institutional markets. In addition to these activities, PPF II will guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR).
57. At the level of family farming organizations, investments will be made in processing units, including assistance via Specialized Technical Assistance (STA) to ensure improved business management, marketing, and sustainability. STA will also be contracted by the PMU and will be provided through entities or companies with specific experience and knowledge of the production chains worked on by the supported organization, usually a cooperative.
58. Cross-cutting themes such as gender, youth, PCT, food security and nutrition will be addressed with the families.

Sub 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty:

59. One activity will be through the development and implementation of PDRLs, with the aim of developing productive and environmental activities with a strong potential to improve/increase production, food security and, as a result, the level of income of families and their climate resilience.
60. The PDRL's financial resources are "non-reimbursable" and include a monetary or non-monetary counterpart from the beneficiaries for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.). The non-monetary counterpart will be identified and validated by ATER at the stage of elaborating the PDRLs, to ensure that this counterpart is consistent with the purpose of the PDRL. The PDRL will be elaborated for a group of up to 4 neighboring communities, identified and selected based on criteria defined in the PIM and on the expression of interest and willingness to work together. For the design, an average of 3 communities of 30 families was considered, i.e., 90 families per PDRL.
61. The PDRL will be the instrument signed between PPF II and the community associations and will be elaborated and implemented with the ongoing support of agroecological ATER. It will have a productive section (**Productive PD**), focused on income-generating activities and improving food security within the family, and an environmental section (**Environmental PD**), whose activities will cover the territory encompassing all communities organized in the plan.
62. The PDRLs will be elaborated by the ATER entities with direct participation of beneficiaries and will be assessed and validated by the PMU, according to the criteria of increased income, increased resilience, adherence to local production and management conditions by the beneficiaries, and the potential for sustainability beyond the conclusion of ATER support.
63. **Productive PD:** These will focus on sustainable production intensification, seeking to introduce and strengthen agroecological practices for diversified production. The constant emphasis on diversification of production systems and activities will be central to both the preparation and implementation of the PDRLs, acknowledging the important role diversification plays in enhancing climate resilience, fostering greater dietary diversity within families, and diversifying sources of income.
64. Each Productive PD will finance up to three different productive activities, thus allowing the reality of family farming to be addressed, without raising highly complex risks with a very strong degree of diversification. Support will be given to the main agricultural activities adapted to the caatinga biome and which form the productive basis for securing families' food and sources of income.
65. The productive section of the PDRL could also include non-agricultural activities such as handicrafts, rural tourism, the provision of local services or any other relevant activity, considering that this type of activity shows potential for including women and young people and for creating new jobs and diversifying sources of income.
66. In synergy with the activities of Component 2, and to boost the investments made, there will be funding for access to water and renewable energy technologies, as well as funding for light mechanization equipment adapted to the context.
67. **Environmental PDs:** The aim is to collectively manage and restore the environment at the territorial level, regardless of whether it is linked to the main activities of the productive PDs.
68. They will have specific resources for collective use, to encourage the implementation of territorial environmental plans such as creole seed banks, the establishment of tree nurseries, reforestation, the recovery of springs and degraded areas, recycling, or composting plans, etc. These plans will be managed by an environmental management group and priority will be given to the participation of Young Environmental Agents⁶⁹ (AJA), as key players in introducing environmental education activities and new environmental practices. Synergies and complementarities with the activities and competencies of SEMA (the Department of the Environment) will be sought to implement the activities of the Environmental PDs.

69. The content of the Environmental PD will mainly derive from the Environmental and Social Management Plans (ESMP), which will be elaborated at the same time as the diagnosis of each PDLR. The ESMP provides a simplified analysis of environmental and social impacts to promote and encourage the adoption of environmental and agroecological practices.
70. This type of PD will follow a participatory approach⁷⁰, in which the local communities of each rural territory will be in charge of planning and, organized in Local Action Groups, will design, and implement a development strategy for that territory, taking advantage of their local resources and knowledge.
71. **Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture:** Provision of agroecological-based ATER services for 2 years, to support all activities related to: i) the collective organization of beneficiaries, ii) capacity building, iii) social inclusion (considering the Project's target groups), and iv) all technical support related to the preparation, implementation and accountability of the PDRLs (productive and environmental). ATER, both face- to-face and remote, will also provide support for the procurement processes for the goods and services provided for in the PDRLs, as well as for finalizing them. Issues related to access to public policies as well as marketing in various opportunities (institutional and private markets) will be other key elements of the support provided by ATER to the beneficiaries. Considering the profile of the production units and the local context, the structuring/improvement of municipal agroecological fairs will be an important axis for promoting the marketing of Family Farming products (see Annex F).
72. These services will essentially be provided by civil society organizations, hired by the PMU after a competitive selection process, which will consider, among other things, knowledge of the local reality, experience and lessons learned in the first phase of the PPF.
73. In addition to face-to-face ATER activities, field work will be complemented with tools based on Information and Communication Technologies (ICTs), defined based on the pilot project financed by Component 3. To this end, a partnership will be formalized between PPF II and EMATERCE for a Digital ATER pilot activity to be developed in a number of municipalities, defined at a later stage. At the end of the pilot, this experience will be evaluated (methodology used, interaction between technicians and farmers, as well as the results) for subsequent replication, providing any corrective measures and expansion to other municipalities.
74. **Training Farmers to Access Public Policies:** The subcomponent will carry out training activities, in the form of workshops, on the modalities and conditions of access to public policies for family farmers, highlighting those aimed at women, young people and PCT (PRONAF, Low Carbon Agriculture, Crop Insurance, institutional markets such as PNAE, PAA, PAA Milk, land access policies and programs for young people and the Planting Time Program). These events may include activities in partnership with agencies responsible for issuing personal documents (ID, CPF, Certificates, CAF, etc.). Priority will be given to families who have not benefited from other project activities.
75. **Land and Environmental Regularization:** To increase security of access to land as a condition for the development of sustainable natural resource management practices, the Project will finance environmental regularization activities and land regularization activities mainly aimed at traditional peoples and communities. These activities will be financed in partnership with the Ceará Institute for Agrarian Development (IDACE), considering that there is a partnership between IDACE and the State Secretariat for the Environment - SEMA. In addition, the modernization and improvement of the land register system will be supported to enable the complete processing of title registration in the registry offices, thus improving the efficiency of issuing property titles.
76. Innovations developed by the other components of the Project that have met the necessary feasibility and relevance criteria will be incorporated in the PDRLs, both in the Productive and Environmental sections.

Sub 1.2. Strengthening the Marketing and Processing of Family Farming Products:

77. Its aim is to strengthen processing units by implementing Business Plans (BPs) to add value to family farming products and to improve their marketing. Organized groups, family farming associations and cooperatives, as well as other actors involved in the main value chains worked on by the Project will be assisted. The BPs will guarantee investments to adapt/refurbish physical structures, as well as the purchase of machinery for two different types of units: i) medium/large processing units; and ii) small units. The BPs may also include funding for access to renewable energies and internet access.
78. Although the subcomponent's main focus is on improving and diversifying income from agricultural production, the investments made through the BP should guarantee accessibility and the supply of healthy and save food. In this sense, the BP for small units could support the establishment of solidarity kitchens (a strategic activity of *Ceará Sem Fome*), which seeks to add value to FF products, prioritizing access for the population in fragile situations.
79. In both cases, specialized technical assistance (STA) will be hired by the PMU (companies or civil society organizations) to prepare and implement the BPs. These services (training, workshops, technical visits, exchanges, etc.) will be aimed at strengthening management capacities (financial, administrative, and social) and improving the production and marketing practices of the organizations. The development of marketing strategies, will consider all the opportunities available on institutional markets (PAA, PNAE, *Ceará Sem Fome* and the Milk Program) and private markets (local markets and mini-markets, municipal fairs, etc.). The content and contracting of STA services will be defined on a case-by-case basis, depending on the specific needs of each organization.
80. STA will also be able to support organizations in certification processes and specific identification of family farming products and agroecological production and will be able to work in partnership with EMATERCE in these aspects, with the aim of enhancing agroecological practices. 101. The STA will normally last two years for large units and one year for small units.
81. The activities of this subcomponent will be implemented with the support of the Coordination of Support for Livestock Production Chains and the SDA's Coordination of Territorial Development, Cooperativism, Commercialization and Solidarity Economy.

Considering that the São José IV Project works with the processing units, synergies and complementarity will be sought whenever possible.

Sub 1.3. Gender, Youth, Food Security and Nutrition

82. This sub-component will aim to promote the empowerment of women and young people, as well as improving food security and nutrition of beneficiary families. The activities will work with three of the Project's cross-cutting themes, strengthening and supporting the mainstreaming of issues related to gender, youth, and nutrition in all the components. Among the women's empowerment activities are gender training, the implementation and monitoring of the agroecological logbook methodology, and childcare circle activities for children, which allow women to participate more. Activities aimed at young people include the planning of youth festivals and caravans, the Young Communicators program, and the training of young leaders, among others. Nutrition activities have focused on exchanges and training, particularly through possible partnership with the Social School of Gastronomy. This will enable adults and elementary school pupils to learn about culinary practices and gastronomic culture and will respond to the ATER needs of families, women, young people and PCTs in terms of processing and promoting their products, particularly NUS. All of these practices will be integrated into the preparation and implementation of the PDRLs, thus seeking effective implementation and results in terms of food security and nutrition. The training courses will also include modules on maternal and child health and reproductive health (see details of the activities in Annex K). Based on the experience of PPF I, possible partnerships with the Ceará School of Public Health, the School of Gastronomy and others will be analyzed.

Component 2: Access to water, sanitation, and social technologies

83. The aim of this component is to make investments in the areas of water, household sewage and renewable energy at family or community level. Whether for community or family use, the investments will guarantee consistent and high-quality access to water for human consumption or agricultural production, as well as reducing soil and water contamination with waste produced in family units. Efficient water use practices and technologies will be systematically implemented to adapt to climate change.
84. Technical assistance provided for families and communities will facilitate knowledge sharing on systems/equipment maintenance, alongside promoting awareness of best practices for efficient water use in domestic, hygiene and sanitation contexts, to maximize the impact on nutrition and community health.
85. To foster innovative solutions, the component will finance the dissemination of sustainable innovations developed under subcomponent 3.3.

Sub 2.1. Rural Community Basic Sanitation:

86. The aim of this subcomponent is to plan and implement basic rural sanitation⁷¹ at community level, to improve the environment and the quality of life of a group of families, considering collective solutions for access to water and sanitary sewage and gray water reuse. In addition, adequate disposal facilities and processes are provided to enable the collection and recycling of some of the solid waste generated by these communities.
87. Investments will be made to guarantee access to drinking water in sufficient quantities and proper quality for human consumption. for human consumption.
88. **Water Supply Systems (WSS):** Implementation of 1,200 WSS interventions, including new systems or improvements, extensions, and rehabilitation.
89. Collective WSS should be operated by community associations in conjunction with the multi- community model, Integrated Rural Sanitation System - SISAR, which is already a consolidated model, as can be seen in the study in Annex 8. The Project will expand the introduction of SISAR in new communities. The economic sustainability of these systems will be guaranteed by SISAR's activities, mainly due to the existing pricing structure. The other activity must be operated and maintained by the community associations and cooperatives that benefit from the project.
90. **Community reuse of grey water.** In pilot format, reuse systems will be implemented to reduce the disposal of contaminated water in the environment, as well as the use of "treated" water for productive purposes.
91. **Recycling household waste:** Within the communities, activities will be implemented and/or supported with associations and cooperatives, including the development of handicraft groups, led mainly by women and young people, for the reuse of waste, including a new source of income for families. For example, machines for making brooms from PET bottles will be purchased for associations.
92. The WSS projects must be developed under the guidelines of the SDA and, specifically for collective water supply systems, the standards for the design and construction of WSS in rural areas in the state of Ceará must be followed. The management of the infrastructure installed, and actions taken will be the responsibility of the community associations, federations of associations and/or cooperatives.

Sub 2.2. Social technology for access to water and support for production:

93. The aim of this subcomponent is to implement social technologies at the family level⁷², such as first-water cisterns (human consumption), second-water cisterns (agricultural production), reuse systems and trench dams (underground dams). In addition to these activities, infrastructures for sanitation solutions will also be implemented, including a complete household sanitation module (toilet with treatment), biodigesters and eco-efficient stoves for generating energy, for example. The social technologies will be implemented by entities contracted by the PMU, with knowledge in these areas and expertise in the territory. In addition to implementation, these entities (NGOs, for example) will carry out all the training to ensure proper use and maintenance of

these technologies.

94. **Social technologies for capturing and storing rainwater**, both for human consumption and for agricultural production, are very well accepted in the semiarid Northeast. They provide a simple, low-cost but very efficient way of storing water for isolated families or in areas of low population density. Cisterns for human consumption guarantee Project beneficiaries the right to quality water, as well as to reducing the impact of severe droughts. Production cisterns make it possible to store water in rain periods for agricultural production purposes, both for "irrigating" small agricultural areas and for animal watering. Trench dams (underground dams) are small infrastructures installed in temporary streams, with the aim of damming up water that runs off the surface and into the ground.
95. **Toilet module**: The absence of a toilet in homes is still common. Therefore, PPF II will expand sanitation coverage by installing sanitation solutions (toilets) with sewage treatment which will have an impact on improving sanitation conditions in communities and, consequently, on the health of families.
96. **Gray water reuse** will increase the resilience of communities to extreme weather events such as prolonged droughts or periods of below-average rainfall. The system collects, treats, and reuses household grey water (shower, sink and laundry) that previously went straight into the ground. After the filtering process, this water can be used to strengthen productive backyards, contributing to food and nutritional security, as well as generating income.
97. **Eco-efficient stoves** for food preparation. These stoves have the dual benefit of reducing the consumption of firewood, thereby reducing the pressure of deforestation on the Caatinga and the emission of greenhouse gases, and of lowering the emission of toxic smoke in the food preparation environment, thereby lowering incidences of cardio-respiratory problems in women and children.
98. **Biodigesters**: their main purpose is to produce cooking gas. Their use allows for a significant reduction in the consumption of firewood from the native forest, as well as being a substitute for the purchase of gas cylinders, generating savings for families. They will be installed in family units that have raw materials such as animal waste and agricultural waste. The use of the biodigester will bring environmental, social, and economic gains to the community, including the preservation of local vegetation; the reduction of soil and water contamination; and the use of biofertilizers and fertilizer in vegetable gardens and fields, helping to increase production.
99. The social technologies' projects must be developed under the guidance of the SDA and must always be discussed with the families before their final approval. The SDA will be ultimately responsible for the projects and works, which can be carried out in cooperation with public and/or private partners. Entities will be contracted to implement the technologies and train and support the beneficiary families, who will be responsible for managing the installed infrastructure. To this end, the families will receive technical assistance and take part in various training events during the implementation of the project. During these events, families learn to incorporate the new technologies into their routine, get sensitized and trained to use the new equipment and should, at the end of the training events, be confident in managing the infrastructure that will be installed.
100. **Support for Production and Innovation**: The Project will support investment in micro- enterprises that provide machinery, services or products customized to the local context, to assist in the agroecological production of family farmers, thus reinforcing rural entrepreneurship. The Project will finance the associated costs of screening, evaluating, and providing technical assistance to enterprises in all the Project regions, so that the activities selected are spread throughout the territory. The criteria for selecting activities will prioritize young people and women from the Project regions. In addition, criteria will be established in relation to scalability, the right to repair, economic and environmental sustainability.
101. Through contracts established and supervised by the PMU, small subsidies and business management support will be offered to support micro-enterprises that innovate and produce specific tools and equipment for small-scale agroecological systems (e.g. agroforestry mechanization), as well as nurseries, composting services, organic fertilizer production, pest control, processing machines for cooperatives and associations, products derived from native/traditional species, renewable energy installation, etc.

C3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

102. This component will be entirely financed by a grant from AECID and was integrated into the project. It will aim to promote capacity building among family farmers and ATER teams, foster environmental education to ensure food security and nutrition in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semiarid environment. Replicable pilot projects will be developed, and exchanges organized, following the model of South- South and Triangular Cooperation (SSTC). It also aims to provide support to the PMU to strengthen the state's institutional capacity to implement PPF II and, in particular, the activities financed by Component 3.

Sub 3.1. Capacity building for family farmers and rural extension teams (Technical Assistance, TA):

103. This sub-component aims to promote capacity building in areas related to climate change resilient agriculture, covering topics such as desertification, nutrition, biodiversity, and food security. It seeks to provide a comprehensive perspective on these issues and, consequently, influence possible public policies.
104. It aims to implement activities to improve and update the knowledge and skills of beneficiaries and the teams of professionals working on the Project, especially within the scope of component 1. It will work with the ATER entities contracted under component 1, EMATERCE and other Project stakeholders. In this sense, it will also seek to value the knowledge of small producers, especially the PCTs, to act as multipliers and local strengthening agents.
105. To this end, courses, training and capacity-building will be set up, including face-to-face activities and virtual content - which will

take place throughout the Project's implementation. In addition, technical assistance will be provided to producers and the exchange of experiences and good practices will be facilitated. Special attention will be paid to the participation and empowerment of rural women.

106. Specifically, the following activities will be carried out: 1) Courses for farmers offered by TA; 2) Training courses to strengthen the technical staff of ATER and STA; and 3) Activities to exchange experiences between farmers in the state.

107. To carry out these activities, the Project will be able to establish partnerships with research and innovation centers, as well as with civil society organizations, in addition to the hired teams. These partnerships will allow, in dialogue with traditional knowledge and practices, the development and implementation of social and technological innovations adapted to the beneficiaries and tailored towards agroecological practices.

108. Aligned with knowledge management products, policy dialogues and SSTC, these activities will allow good practices to be scaled up, increasing replicability beyond the territories in which they operate.

Sub 3.2. Promoting environmental and climate education with a gender focus in rural schools:

109. This subcomponent focuses on promoting gender-sensitive environmental and climate education in rural schools⁷³. To this end, training will be provided for students, teachers and school cooks in areas related to climate resilient agriculture, sustainable management of natural resources such as water and biodiversity, as well as seedling production, conservation of creole seeds, reforestation and food security and nutrition.

110. A network of partners will be mobilized to contribute with lectures and specific courses on topics of interest to the Project - including members of the PFF II team itself, contracted ATER entities, mobilization of specialists from EMBRAPA, universities, SEBRAE or other organizations.

111. In addition, the education on nutrition and food safety for students, cooks and teachers will be promoted by valuing local agrobiodiversity, promoting the production and consumption of nutritious, agroecological and safe food, with attention to gender equality in production and consumption. The knowledge acquired will be shared with families and communities, thus contributing to the dissemination of sustainable practices, respecting local culture, and improving food security in their context.

112. Specifically, it will seek to support the strengthening of the knowledge and extension practices of high school students at the Family Training Centers by Alternance (CEFFAs) and similar institutions. The CEFFAs play a strategic role in sustainable territorial development, with young people at the forefront. The subcomponent will assist students and teachers at these institutions to strengthen their role as multipliers of agroecological knowledge and good practices, as well as to improve productive inclusion and income generation for rural youth, contributing to their permanence and succession in rural areas.

113. There are currently 5 EFAs⁷⁴ in the state of Ceará, 3 of which are in the Project area in the municipalities of Independência, Quixeramobim and Ipueiras. With the activities of this sub-competent, these schools will be able to strengthen their pedagogical program for the technical and productive training of young people.

Sub 3.3. Promotion of research on technology and implementation of pilot projects:

114. It aims to promote research on technology and the implementation of pilot projects that are economically accessible and viable, with the potential to become rural businesses. These projects will seek to use renewable energies, reduce the use of firewood and biomass, and improve the quality of water for human consumption, among other activities. Examples of possible pilot projects include:

- (i) Development of eco-efficient stoves and solar ovens;
- (ii) Equipment for treating water from cisterns for human consumption;
- (iii) Alternatives to the use of firewood in small cassava processing units and other forms of processing;
- (iv) Solutions for recycling solid waste to produce handicrafts and generate energy;
- (v) Tools for rural digital inclusion, especially for vulnerable groups; and
- (vi) Experiments and solutions in bio-saline agriculture.

115. In this context, reference centers will be established to serve as spaces for research, dissemination, and knowledge sharing, in collaboration with universities and research centers for the development of pilot projects. The methodology of these activities will be based on close collaboration with family farming organizations throughout the process, from the identification to the implementation of the projects, with the aim of achieving social integration and ownership of the solutions by the beneficiaries. The collection and analysis of lessons learned, and good practices obtained in the pilot projects will enable their subsequent transfer through SSSTC to other countries, with priority given to Portuguese-speaking countries such as Angola and Mozambique, the Sahel region and dry regions in Latin America and the Caribbean (LAC) such as the Grand Chaco and the Dry Corridor.

Sub 3.4. Knowledge Management and South-South and Triangular Cooperation (SSTC):

116. This subcomponent will focus on systematizing, documenting, and disseminating the knowledge, experiences, innovations, technologies, and good practices developed and tested, making them accessible. In addition, studies and research related to the Project's priority areas will be carried out, mobilizing new knowledge and good practices, and expanding the network of partners. Analyses are also planned on the participation of women in family food production and security, and on activities aimed at including PCTs.

117. The innovations and good practices promoted by the Project will be disseminated and shared through SSTC activities with other semiarid areas in Africa and LAC. Exchange activities will also be carried out with selected African countries, with special attention to the Sahel region and Portuguese-speaking countries.
118. The Project will be supported by the IFAD Centre for Knowledge and South-South and Triangular Cooperation for the Latin American and Caribbean Region, located in Brasilia, and by the AECID Training Centre, located in Montevideo, Uruguay. These centers will support the organization of exchanges with countries in other regions to meet specific demands related to the Project's priority areas and to socialize the lessons learned and social technologies promoted by the Project. The SSTC activities will be coordinated with ABC and will consider the institutional agreements previously signed between ABC, IFAD and AECID.
119. The knowledge generated by the Project and the SSTC activities will play a key role in promoting political dialogues and developing public and private actions aimed at sustainable rural development.

Sub 3.5. Strengthening the PMU to implement and monitor activities:

120. It aims to strengthen the capacity of the PPF II PMU to improve the implementation and monitoring of activities financed by Spanish Cooperation. The functions envisaged include: i) advising the PMU on the design and planning of activities, as well as the preparation of the procurement plan; ii) supporting the PMU in monitoring and following up on project activities and, in particular, the components related to knowledge management and SSTC. iii) technical assistance to the SDA on the design of innovation policies and programs in the agricultural sector based on Spain's experience; iv) support for the transfer of knowledge and good practices from Spain in the field of sustainable agriculture and water management to the state of Ceará; and v) coordination with the Spanish Cooperation Office for Brazil, based in Montevideo, Uruguay, of the triangular cooperation activities carried out under the Project.
121. Institutional capacity building will focus on areas such as access to public policies, financial management, project management and administration, procurement, monitoring and evaluation, business plan preparation and analysis, agroecological approaches, climate change, gender and diversity and digital ATER.

Project Management, M&E, KM and SSTC

122. It will be responsible for carrying out all the necessary project management activities to ensure efficient implementation through a Project Management Unit (PMU), under the responsibility of the Secretariat for Agrarian Development (SDA). The M&E system will support the planning, monitoring and evaluation of results, and Knowledge Management and South-South and Triangular Cooperation (SSTC) will enable the preparation of materials/systematizations on PPF II good practices, as well as allowing the exchange of knowledge through exchanges in the state of Ceará, the semiarid region of Brazil and other countries.⁷⁵

Project Management Unit (PMU)

123. The Project Management Unit (PMU) at the SDA in Fortaleza (CE), is responsible for implementing the Project and carrying out the activities of technical coordination, management of the agreements established with the partner entities, management of the agreements established with the beneficiaries, procurement management, financial management and audits.
124. The PMU's key team will consist of government employees and will be complemented by professionals hired through a partnership with the Inter-American Institute for Cooperation on Agriculture (IICA), mainly in the areas of monitoring and evaluation, procurement, finance/accounting, and the rendering of accounts for agreements, as well as technicians to advise on the management of the components.
125. The Project will have offices in the Project's implementation areas, supported by EMATERCE's extensive physical structure (more details in Annex 8).

Monitoring and Evaluation (M&E)

126. To carry out the M&E activities, financial resources are earmarked for contracting evaluation studies, such as the Impact Evaluation (with baseline, mid-term, and final evaluation), as well as follow-up/evaluation studies on the implementation of the Project. The activities relating to the donation will be monitored and evaluated by means of specific studies and procedures established by AECID.
127. The following activities are planned: i) project planning and management, including support for decision-making; ii) monitoring of the logical framework (LF); iii) evaluation studies, including baseline, mid-term, and impact assessment; and iv) support for the preparation of technical documents in synergy with the Knowledge Management strategy.

Knowledge Management (KM) and South-South and Triangular Cooperation (SSTC)

128. KM activities should be planned and staggered, considering the Project's life cycle. Financial resources have been allocated to enable the systematization of good practices and lessons learned, the formulation of knowledge products (publications, booklets, videos, manuals, etc.), and the carrying out of dissemination activities (seminars, workshops, webinars, digital platforms, newsletters, social networks, etc.). All the KM products generated during the Project, as well as good practices, exchanges and lessons learned should be archived on a website for dissemination and use among the Project's different actors and stakeholders.
129. The Project will rely on the support of strategic partners, to be identified in the start-up phase and throughout implementation, to carry out studies, research, and events. These partners will play a key role in the Project's sustainability strategy, ensuring that

the knowledge generated is widely distributed and made available even beyond Project completion. The Project will have a cross-functional specialist, who will monitor communication, KM and SSTC issues. Specialized consultants will be hired to prepare technical documents and specific activities.

130. The SSTC activities will be divided into two main groups: i) exchange activities with countries in the Global South and Spain, to learn about experiences and good practices that can be adapted and replicated by the Project; and ii) cooperation activities with countries in the Global South aimed at disseminating and widely socializing the technologies and innovations generated by the Project. IFAD and AECID will support, based on their respective portfolios, the identification of SSTC opportunities between the Project and other countries in the Global South. In addition to dry areas of Latin American countries, Lusophone Africa and the Sahel region have been identified as potential partner countries for SSTC activities.
131. The activities carried out on this theme will contribute to the exchange of experiences and debates within the framework of the UN Decade of Family Farming and it will also serve, in conjunction with Component 3, for policy dialogue activities. The knowledge management products, aligned with policy dialogue and SSTC, will allow good practices to be scaled up, increasing replicability beyond the territories in which they operate. It will pave the way for enhanced policy dialogue on the many interventions proposed by the PPF II with state and federal bodies ensuring alignment with state and national priorities and also the possibility of IFAD to have higher incidence on public policies. The PPF II combined with the other two projects in the State of Ceará (PDHC III and PCR/P/Sertão Vivo) could position IFAD a major policy dialogue partners and with meaningful incidence in the policy spheres both at state and federal levels. With partners such as BNDES, GCF and AECID and SSTC the policy dialogue will also reach other countries. One such avenue is Mercosur Network of Family Agriculture (REAF). Policy dialogue could also reach Instruments which will strengthen the programmatic approach are cohesive arrangements for supervision and strong collaboration with key policy-making actors such as the Northeast Consortium of Governors and the Forum of State Secretaries of Northeast Brazil.

E. Theory of Change

132. The Project seeks to reduce poverty, food insecurity and malnutrition through investments in family farming, ensuring the development and strengthening of sustainable local food systems. This will improve farmers' resilience and income, thus addressing the underlying causes of malnutrition. It will also address gender inequalities and social exclusion and strive to empower women, youth, PCT and the LGBTQIAP+ community. The Project will build on the solid foundation of PPF I, scaling up successful initiatives from PPF I and introducing innovative solutions to achieve its goals. It will expand into new areas of intervention, incorporating some territories from PPF I as models and references to replicate successful experiences and consolidate their achievements.
133. Currently, production systems are characterized by low productivity, little diversification, increasing degradation of natural resources and high levels of vulnerability to climate change, especially drought. The family farmers faces various social, generational, and ethnic-racial inclusion gaps, which results in the perpetuation of poverty, vulnerability, food insecurity and malnutrition. This also includes environmental pollution and the health impacts due to untreated waste. There are few opportunities for family farmers to access technology, services and markets that are adapted and responsive to the development of sustainably produced food and employment opportunities. To address these challenges, the Project will work on three development pathways that will lead to the Project's results and help achieve its goal.
134. The result to be achieved with the first path is for rural families and their organizations to achieve greater resilience, by increasing and diversifying their food production and nutrition, improve their commercialization by accessing new markets and increasing sales, while encouraging innovation and the employment of young people and women. This will be achieved through:
- (i) Promote investments in rural communities and families through the PDRL to introduce and improve diversified, resilient, and nutritious production systems, improve the sustainable management of natural resources to promote production and increase income;
 - (ii) To provide ATER services using participatory methodologies that meet the specific needs of the Project's target groups, with a focus on agroecological production systems, the valorization of socio-biodiversity, social inclusion and empowerment and the development of adapted innovations as well as the use and maintenance of social technologies;
 - (iii) Mainstreaming women's and young people's empowerment through training, awareness-raising and information sessions, festivals, and exchanges;
 - (iv) Training and capacity building for beneficiaries and their organizations to improve nutritional practices, production, safe processing, conservation, and marketing of local food;
 - (v) Guarantee investments in improvements/adaptations to existing small processing units through business plans to strengthen the marketing of agroecological family farming products;
 - (vi) Present existing public policies, to encourage and guarantee access;
 - (vii) Support land and environmental regularization, especially for indigenous peoples and traditional communities, with special attention to women.
135. The participatory territorial approach, together with an ATER adapted to meet the local needs of the target groups, serves as the basis for achieving a more significant impact in the Project's activities, since they are integrated and complementary, resulting in a broader restoration of natural resources and ecosystem services. This, in turn, contributes to diversified and productive agroecological production, improving nutrition and empowering the beneficiaries. Qualified ATER and support for producer organizations aim to improve access to the agroecological market, creating more sales opportunities for farmers. Strengthening and supporting the sensitization issues related to gender, youth, and nutrition will have an impact across the project and will include project beneficiaries and ATER.

136. The expected result for the second pathway is to improve water resilience and living conditions of rural communities by ensuring that rural families and communities increase their access to water, sanitation and other sustainable and adapted climate-resilient solutions through innovative social technologies. This will be achieved through:

- (i) Guarantee investments in collective solutions for access to water and domestic sanitation;
- (ii) Promote investment in social technologies for capturing and storing rainwater for human consumption and production;
- (iii) Implement small-scale sanitation infrastructures for solutions that preserve natural resources and use them sustainably;
- (iv) Implementing and scaling-up technologies and innovations in machinery, tools and structures for the production of renewable and/or more efficient energy.

137. The PDRLs elaborated along the first path will identify the need for investment in social technologies. Pilots of these identified and tested technological needs will be implemented and scaled up. These technologies, especially those ensuring sustainable access to water, will be key to enhance diversified and sustainable production strengthened and promoted under the first path. They play a key role in increasing resilience to climate change and potentially extending food production season, marked by highly seasonal rainfall patterns. In addition, improving access to safe water and other social technologies like eco-efficient stoves or biogas will contribute to improved family health and nutrition, as well as greater efficiency in reducing women's workload.

138. The expected result of the third pathway is to strengthen the capacities of field technicians and empowered youth, women, PCT and LGBTQIAP+ groups while increasing knowledge and the availability of innovations. This will enhance sustainable food system transformation through improving the promotion of agroecological transition as well as adaptation to climate change. It will also foster knowledge generation and dissemination, promoting innovations applied to family farming, tailored to the semi-arid region's conditions. This will be achieved through:

- (i) Improve and update the knowledge and skills of ATER field technicians, of the family farmers participating in the Project, and of teachers at rural education institutions in participatory methodologies, agroecological production adapted to climate change, environmental education, food security and nutrition, gender empowerment and market access;
- (ii) Support pilots to co-create and disseminate innovations and technologies and for the development of climate resilient technologies and innovations adapted for Family Farmers;
- (iii) Produce KM materials and carry out activities to expand the exchange of knowledge in countries of the global south, through exchanges.

139. Supporting pilot innovations to be scaled-up by the second pathway will enhance climate change resilience, while at the same time creating diversified employment opportunities, especially for youth. Providing education and the generation of knowledge is a fundamental aspect of achieving the sustainability of the investments and activities implemented and accompanied by the other two pathways, and thus ultimately, of guaranteeing poverty reduction and food security for rural families. The SSTC will serve as a vehicle for disseminating practices and exchanging experiences, facilitating the acceleration and scaling-up of knowledge and innovation.

F. Alignment, ownership and partnerships

140. PPF II will contribute directly to the United Nations Sustainable Development Goals (SDGs) by supporting agroecological, resilient and sustainable production systems of poor and extremely poor family farmers and promoting a consistent food and nutrition security strategy. In particular the SDGs: 1 (no poverty), 2 (zero hunger), 4 (quality education), 5 (gender equality), 6 (clean water and sanitation), 10 (reduced inequalities), 12 (responsible consumption and production), 13 (climate action) and 15 (life on land). By adopting an approach focused on climate adaptation, nutrition, gender, and youth, as well as a focus on rural populations in situations of poverty and vulnerability, the Project aligns with the priorities and commitments of IFAD 13. Also, there is an alignment with the three Goals of the IFAD Strategic Framework 2016-2025 and the cross-cutting priorities linked to gender, youth, indigenous peoples, nutrition, and climate change.
141. The Project is strongly aligned with the United Nations Decade for Family Farming (UNDF) 2019-2028 and the National Action Plan, recognizing the enormous contribution of family farming to the achievement of the 2030 Agenda for Sustainable Development and the role that family farming plays in improving nutrition and ensuring global food security, eradicating poverty, ending hunger, conserving biodiversity and environmental sustainability.
142. PPF II will contribute to the three Strategic Objectives (SOs) of IFAD's new Country Strategic Opportunities Program (COSOP) in Brazil 2024-2029. The PPF II was designed simultaneous to the new COSOP and it will contribute to the achievement of three Strategic Objectives (SOs): SO 1 (Improve sustainable agricultural production, food security, nutrition and market access with a focus on environmental and climate sustainability) through Component 1 and 2; SO 2 (Enhance public policies and programmes through evidence-based revision and scaling of best practices) through Component 3 and SO 3 (Strengthen the capacities of government institutions and organizations of the rural poor to drive inclusive and sustainable rural development) through Component 3. The PPF II will contribute to the COSOP because it will strengthen and transform family farming systems in the Northeast through approaches that are environmentally sustainable, resilient and guarantee food security for families. In particular, through: i) enhancing agricultural production, food security, nutrition and access to markets; ii) improving rural development and rural poverty reduction public policies; iii) strengthening the capacities of government institutions and farmers' organizations. The Project took full advantage of the preparation of the new COSOP and its strategic directions, especially its preparatory studies and stakeholder consultation process.
143. The Project is strongly aligned with the Brazilian federal government's Pluriannual Plan (PPA) 2024-2027. The Project adheres to and is aligned with the objectives of some of Ceará 2050's strategic programs, such as Mais Valor no Campo, Ativos Ambientais and Segurança Hídrica no Semiárido.
144. The interventions proposed by the Project will not be carried out in isolation; on the contrary, they are integrated with programs at the federal level: The National Program for Technical Assistance and Rural Extension in Family Farming and Agrarian Reform (PRONATER), the National Program for Strengthening Family Farming (PRONAF), the Food Acquisition Program (PAA), the National School Feeding Program (PNAE), the Cistern Program and the National Policy for the Sustainable Development of Traditional Peoples and Communities and the National Plan for the Promotion of LGBTQIA+ Sexual Diversity⁷⁶. It will also be aligned with the National Plan for Agroecology and Organic Production (PLANAPO), which is currently being elaborated and IFAD has been invited by the General Secretariat of the Presidency of the Republic to participate as the only international organization.
145. The Project will also take advantage of the network of strategic partners articulated in Phase I of the Project and in other IFAD actions in Brazil, such as the National Semi-arid Institute (INSA) of the Ministry of Science, Technology and Innovation (MCTI), the decentralized units of the Brazilian Agricultural Research Corporation (EMBRAPA) of the Ministry of Agriculture and Livestock (MAPA), as well as the wide network of civil society organizations, educational institutes, universities and research organizations. At state level, the Project will establish strategic partnerships with the Water Resources Management Company (COGERH), the Ceará State Economic Research Institute (IPECE) and the SDA's thematic coordinating bodies, such as the State Technical Assistance and Rural Extension Company (EMATERCE), the Ceará Agrarian Development Institute (IDACE), and with the São José IV Project (financed by the World Bank and implemented by the SDA).
146. PPF II will also act in a complementary and synergistic way to other IFAD investment projects that have recently started or are in the design phase in the state of Ceará: PCR/Sertão Vivo (regional)⁷⁷ and PHDC III (federal)⁷⁸. In particular, PPF II could contribute in the following thematic areas: technical assistance, targeting, access to water, renewable energies, market access, preparation and implementation of investment plans. It could also have an important role in policy dialogue especially regarding its contribution in the dialogue with the Forum of State Secretaries of Northeast Brazil and the Consortium of Governors of Northeast.
147. PPF II will maintain a close relationship with IFAD's Center for Knowledge and South-South and Triangular Cooperation (SSTC) in Brasilia and with the Spanish Cooperation Office for Brazil located in Montevideo, Uruguay, which will ensure synergy on innovative approaches, good practices and policy dialogue between the new projects in the country's portfolio and IFAD and AECID projects in other regions of the world.
148. The IFAD Office in Salvador will play a central role in supervision, support for implementation and completion as well as partnership and policy dialogue and will enable the interface with other IFAD interventions in Ceará and Brazil.

G. Costs, benefits and financing

a. Project costs

149. The Project costs are divided into three (3) operational components and one (1) management component. The total cost of the Project is 139 million euros (including the beneficiaries' contribution). 61.2% is the cost of Component 1 "Rural development with environmental sustainability based on agroecology", 28.2% of Component 2 "Access to water, sanitation and social technologies", and 2.9% of Component 3 "Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid Region (INOVA CLIMA)" (Table 1) and 7.8% of "Project management, monitoring and evaluation (M&E), knowledge management and South-South and triangular cooperation (SSTC)".

Table 1: Project cost by component and funding source (€'000)

Brazil Projeto Paulo Freire II Components by Financiers (Euro '000)		IFAD		Aecid		Aecid_Donation		Ceara State Government		Beneficiaries		Total	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
		1. Rural development with environmental sustainability based on agroecology	8 000	9.4	57 530	67.7	-	-	13 910	16.4	5 568	6.6	85 008
2. Access to water, sanitation and social technologies	-	-	28 450	72.7	-	-	6 264	16.0	4 432	11.3	39 146	28.2	
3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid Region (INOVA CLIMA)"	-	-	-	-	4 000	100.0	-	-	-	-	4 000	2.9	
Project Management, M&E, KM and SSTC	-	-	6 020	55.5	-	-	4 826	44.5	-	-	10 846	7.8	
Total PROJECT COSTS	8 000	5.8	92 000	66.2	4 000	2.9	25 000	18.0	10 000	7.2	139 000	100.0	

150. The Project organizes its implementation costs into six (6) investment categories and two categories of recurring costs. The "Grants and Subsidies" category is the most relevant and represents 41.7% of total costs, the "Goods, Services and Inputs" category 30.0%, the "Technical Assistance and Rural Extension (ATER)" category 18.7%, "Technical Assistance (TA)" 2.9%, "Civil Works" 2.7% and finally "Training, Workshops and Meetings" 0.4% of costs. The categories "Salaries and Allowances" and "Operating Costs" account for 3.5% and 0.1% respectively, as can be seen in Table 2. The total duration of the Project is 72 months (6 years).

Table 2: Project costs by category of expenditure and source of funding (€'000)

	FIDA		AECID LOAN		ECID DONATIO		ARA STATE GBENEFICIARIES		TOTAL			
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%		
I. Investment Costs												
A. Technical Assistance and Rural Extension -ATER-	8 000	31%	5 130	20%	-	0%	12 870	50%	-	26 000	19%	
B. Technical Assistance -AT-	-	-	-	-	4 000	100%	-	-	-	4 000	3%	
C. Grats & Subsidies	-	-	49 172	88%	-	-	1 040	2%	5 568	10%	55 780	40%
D. Goods, Service and Input	-	-	30 720	74%	-	-	6 536	16%	4 432	11%	41 688	30%
E. Trainings, Workshops & Meeting	-	-	450	82%	-	-	100	18%	-	-	550	0%
F. Civil Works	-	-	3 151	83%	-	-	645	17%	-	-	3 796	3%
Total Investment Costs	8 000	6%	88 623	67%	4 000	3%	21 191	16%	10 000	8%	131 814	95%
II. Recurrent Costs												
A. Salaries & Allowances	-	-	1 019	21%	-	-	3 809	79%	-	-	4 828	3%
B. Operating Costs	-	-	2 358	100%	-	-	-	-	-	-	2 358	2%
Total Recurrent Costs	-	0%	3 377	47%	-	0%	3 809	53%	-	0%	7 186	5%
Total PROJECT COSTS	8 000	6%	92 000	66%	4 000	3%	25 000	18%	10 000	7%	139 000	100%

151. Table 3 presents the planned investments by year and by component, showing the demand for the disbursement curve that the Project will need to achieve its objectives, where it can be seen that year 4 will be the period with the largest investment in the Project, with 45 million euros expected to be executed, which represents 31% of the Project's total.

Table 3: Project cost per component per year (€'000)

Project Components by Year -- Totals Including Contingencies Euro ('000)	Totals Including Contingencies (Euro '000)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
	1. Rural development with environmental sustainability based on agroecology	15	6 963	22 365	33 315	22 320	30
2. Access to water, sanitation, and social technologies	1 898	4 320	10 610	9 547	8 573	4 199	39 146
3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid Region (INOVA CLIMA)"	410	999	938	683	590	380	4 000
Project Management, M&E, KM and SSTC	3 438	1 258	1 468	1 598	1 478	1 608	10 846
Total PROJECT COSTS	5 760	13 539	35 381	45 143	32 961	6 217	139 000

b. Project financing/co-financing strategy and plan

152. The Project will be financed by four (4) different sources: IFAD with a loan of 8 million euros (through the Borrowed Access Mechanism – BRAM); AECID with a loan of 92 million euros; AECID grant of 4 million euros; the Government of the State of Ceará with a counterpart contribution of 25 million euros; and the beneficiaries will contribute an estimated 10 million euros, mainly in kind. The IFAD funding source represents only 5.8% of the total value of the Project and will finance 9.4% of component I. The AECID grant will finance 100% of component III, financially to the value of 2.8 million euros and through the provision of direct services to the equivalent of 1.2 million euros. The AECID loan will finance 67.7% of Component 1, 72.7% of Component 2 and 55.5% of project management, M&E, KM and SSTC, making AECID the most relevant financier. Considering AECID's total funding (loan and grant), the agency will finance 69.1% of the total project cost.
153. The Government of Ceará will contribute 16.4% of Component I, 16% of Component II and 44.5% of "Project management, monitoring and evaluation (M&E), knowledge management and South-South and triangular cooperation (SSTC)". Finally, the beneficiaries of the Project will contribute 6.6% of Component I and 11.3% of Component II in kind and with their own resources as a counterpart to the investments.
154. The contribution from the Government of Ceará will be partly financial and partly in the form of logistical costs, materials, the contribution of specialized professionals, the use of facilities, offices, and technical services.
155. There is only one line of expenditure/investment that has international co-financing, which is the contracting of Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture, which is co-financed by IFAD (30%), AECID (20%) and the Government of Ceará for the remaining 50%. The proposed strategy is to make the contracting of these services independent of the funder. It is estimated that different contracts will be signed for the provision of these services, which have been 100% financed by one of the sources, depending on technical convenience and the availability of resources with the current contracting arrangements, so the co-financing of this line cannot generate any kind of inconvenience with regard to availability and/or *pari passu* compliance, thus avoiding dependence on budget availability depending on the origin of the funds.

c. Disbursement

156. IFAD and AECID loan and donation will be disbursed in euros (EUR) and deposited in separate designated accounts in euros at the Caixa Econômica Federal (CEF) in the name of the State of Ceará and managed by SEFAZ - Secretaria da Fazenda).
157. Operational accounts will be maintained with CEF in Fortaleza, to process local currency payments to service providers and suppliers, and transfer funds to other project partners. A pooled operational account in Brazilian Reals may be used for expenditure covered by IFAD Loan, AECID loan and State of Ceará counterpart funding as the system permits tracking of balances by funding source. For the AECID Donation, Spanish Government regulations require a separate operational account in Brazilian reals is kept.
158. In accordance with IFAD procedures, disbursements for both AECID and IFAD funding will be made based on the Quarterly Interim Financial Reports (IFRS) and will provide for a cash flow of six months of execution. Request for disbursements will be submitted through IFAD Client Portal (ICP). Based on the Co-Financing agreement signed between AECID and IFAD, IFAD shall review the disbursements requests and accompanying documentation, based on which IFAD shall recommend AECID whether or not to authorize the requested disbursements.
159. Since AECID as principal funder requires reporting by component, disbursement categories reflected in the allocation table in Annex 2 of the IFAD Financing agreements will be by the components as per Cost Tables in PDR.

d. Summary of benefits and economic analysis

160. **Socio-economic benefits.** In the current economic context, it is important to highlight the importance of a state economic policy that promotes the sustainable and lasting development of the Brazilian Northeast. The current situation calls for actions that promote industrialization, added value and productive diversification, to strengthen the productive capacity of the Federative Republic of Brazil. In this paradigm, strategic planning and investment in infrastructure are fundamental pillars for boosting economic growth and overcoming structural inequalities.
161. The projected benefits of the Project are mainly focused on increasing the income of producer organizations in the family farming sector to generate new jobs, bringing substantial improvements to both the environment and the Project's direct beneficiaries. The indicators used to assess the viability of the improvement proposals in terms of productivity, technology and marketing include: (i) profit, represented by the Gross Margin; (ii) net family income, calculated as the sum of profit and the value of family

labor; (iii) job creation; (iv) the internal rate of financial return (IRRf); and (v) the discounted value of the incremental net benefits (NPVf) compared to the situation without the Project, taking into account market prices.

162. The time horizon for calculating the IRRf and NPVf was set at 10 years, in accordance with the useful life of the main investments analyzed and the life cycle of the technological innovations that are expected to be implemented. In this analysis, a discount rate of 10% per year was applied, which reflects the estimated opportunity cost of capital for loans with similar characteristics. In addition, an exchange rate of 5.30 Reais per Euro was considered as part of the assumptions used to assess the Project's benefits.

163. **Financial viability** of the Paulo Freire II Project's producer organization models. To estimate the economic and financial benefits of the Project, economic and financial viability indicators were calculated for six (6) models intended to exemplify the heterogeneous situations of producer organizations according to their scale, size, production culture, geographical space, and level of institutional maturity.

164. A detailed description of the models with their respective performance indicators is presented in Annex 4 of this document. The results are shown in Table 4 below.

165. **Table 4: Socio-economic indicators of the PPF II models**

	Models	Net profit in reais				Family net income in Reais				Jobs (salary)			IRRf	NPVf \$R
		WOP	WP	Diff	%	WOP	WP	Diff	%	WOP	WP	Diff	%	%
M1	Model I: Agroecological Cotton	254,700	830,048	575,348	226%	2,830	9,223	6,393	226%	490	810	320	32.9%	\$ 1,380,726
M2	Model II: Sheep on irrigated farmland	101,375	410,468	309,093	305%	1,126	4,561	3,434	305%	68	86	18	25.2%	\$ 604,479
M3	Model III: Agroforestry System	19,056	910,342	891,286	4677%	212	10,115	9,903	4677%	3,000	4,050	1,050	24.3%	\$ 1,297,687
M4	Model IV: Agroecological vegetables under irrigation	117,000	402,005	285,005	244%	1,300	4,467	3,167	244%	1,800	2,066	266	29.8%	\$ 670,038
M5	Model V: Beekeeping	70,200	1,026,845	956,645	1363%	780	11,409	10,629	1363%	1,080	1,080	0	76%	\$ 3,438,585
M6	Model VI: Free-range chicken for meat and eggs	12,477	3,908,603	3,896,126	31227%	139	43,429	43,290	31227%	350	575	225	86%	\$ 7,791,017

166. The IRRf of the six (6) projected models varies between 24.3% and 86%, and the NPVf are all positive. There is an increase in annual family income ranging from R\$3,167.00 to R\$43,290.00 in the "Agroecological horticulture under irrigation" and "Freerange chicken for meat and eggs" models, which indicate the feasibility of professionalizing activities that farmers know about but carry out in a rudimentary way. The generation of effective employment is important in all the analyzed models.

167. **Economic viability.** According to the analysis, the Project plans to directly assist around 80,000 producer families. These beneficiaries will participate in the Project through PDRLs, the installation of cisterns, training and awareness-raising activities, and civil works to improve the environment and access to water for families and production. The production models are presented in Annex 4 and demonstrate the potential investment flows that could be made by the Project beneficiaries.

168. The economic assessment was carried out by estimating the flow of incremental net benefits based on: i) the annual benefits of producing in the PDRL models; ii) the annual investments and costs of producing these items; and iii) the project costs, net of the contributions made to each model, contingencies, and taxes. The estimate of the economic benefits considered the economic prices of the products. These prices were calculated by deducting Value Added Tax (VAT) from market prices. The economic indicators were calculated for a period of 10 years, based on the durability of the main recommended investments and a discount rate of 7%. The results of the analysis (see Annex 4) show that the Project is economically viable, as well as a good investment for the Brazilian government in general and the state of Ceará in particular: the IRR was calculated at 23.5%, the NPV of the incremental net benefit is R\$706,289 million and the B/C (benefit-cost ratio) equals 4.1.

169. The Project focuses on improving productivity, technical assistance, improving access to markets and access to water for producer families and the environmental sustainability of family farming. Appendix (4) develops the multidimensional impact of the activities that accompany the Producer Organizations from adding value to production, agroecological certifications, the use of new information technologies, marketing, and physical means to improve commercial insertion, shortening the value chain of farming families linked to the Project.

170. **Sensitivity analysis.** The sensitivity analysis was carried out considering the various risks that the Project could face. We assessed the possibility of decreased demand due to macroeconomic issues, possible increases in the cost of critical production factors, potential delays in realizing profits and the likelihood of weather problems that could affect production and reduce profits. We also consider the risk of increased production costs due to rising global inflation and the effects of general economic instability, which could result in a shortage of critical production factors and, consequently, an increase in their prices. In addition, given the duration of the Project over several years, the possibility of delays in its implementation was analyzed. We carried out an exhaustive analysis of possible reductions in the adoption rates of the models developed and the results are presented in Table 5, which illustrates the potential impacts of these risks through a sensitivity analysis.

171. **Table 5: Sensitivity analysis of the Paulo Freire II Project**

Sensitivity analysis								
	Δ%	Risk		IRRe	VPL (R\$)	VPL (USD)		
base scenario				23.46%	440,431,984	83,100,374		
Project Benefits	-10%	Productivity, pricing and adoption risks		21.84%	369,561,136	69,728,516		
Project Benefits	-20%			20.07%	298,690,288	56,356,658		
Costs	10%	Incremento de custos e preços		22.33%	419,889,165	79,224,371		
Costs	20%			21.30%	399,346,346	75,348,367		
1 year delay in benefits		Delay in adoption and results, Risks of a political nature in the processing of the project and its approval, risks related to weaknesses of the executing entity		20.95%	357,326,419	67,420,079		
2 year delay in benefits				18.73%	281,775,906	53,165,265		
Climate event every 4 years	50% Benef	Climate risks		23.45%	427,261,189	80,615,319		
Climate event every 3 years	50% Benef			22.49%	398,865,433	75,257,629		
Combined scenario		Costs	Benefits	10%	-10%	20.74%	349,018,317	65,852,513
				10%	-20%	19.01%	278,147,469	52,480,655
				20%	-20%	18.02%	257,604,650	48,604,651
				20%	-30%	16.15%	186,733,802	35,232,793
				20%	-10%	19.73%	328,475,498	61,976,509

172. The sensitivity analysis highlights the robustness of the Project in most of the risks identified as critical, considering the context of its implementation. The most vulnerable aspect, which results in a 30% decrease in the indicators, is related to combined scenarios of cost increases of more than 20%, benefit reductions of less than 30% and delays in the proposed benefits due to delays in Project implementation of more than two years.

173. However, despite this sensitivity, the Project did not record a significant reduction in the analyzed indicators. The other variables do not seem to pose any substantial problems in terms of achieving the Project's objectives. The high sensitivity of the Project to delays in implementation underlines the importance of having highly qualified technical teams in the different government entities to strengthen the institutional framework. In addition, the experience of the Paulo Freire I project is a positive precedent for reducing this risk.

e. Exit Strategy and Sustainability

174. Ensuring the sustainability of the project investments beyond the duration of the project is paramount. This has been a key consideration from the project design stage. A sustainability strategy plan will be elaborated from the third year of implementation, which will be monitored during IFAD supervision missions, and which may be accompanied by AECID. In the following, several elements are highlighted that will contribute to the long-term sustainability of the investments and activities implemented during the Project.

175. The perfect alignment of the Project with the priorities of the SDA and the Government of Ceará in general will create favorable conditions for strong ownership of its activities, both during and after implementation. Several factors will contribute to this:

176. At State and government level:

177. (i) Collaboration with the bodies linked to the SDA, such as EMATERCE, IDACE, the different sectoral coordinating bodies, and the São José IV Project, will be a strategic factor in integrating the beneficiary families and their organizations into the SDA system;

178. (ii) The integration of PPF II activities in Micro-Regional Forums and in the Municipal Commissions for Life in the Semi-arid will open up strategic channels to help maintain the activities beyond the end of the Project;

179. At the community and family level:

180. (i) The training and support activities for access to various public policies should create favorable conditions for the beneficiaries, thus allowing them greater autonomy and capacities to expand and maintain the activities started with PPF II;

181. (ii) The Project aims to strengthen the capacities of the beneficiary population and their community organizations through ATER, so that they can access and implement other resilient projects and productive activities;

182. (iii) Improving capacities and knowledge in nutrition, together with participatory methods of social, ethnic-racial, gender and youth inclusion, will contribute to achieving better ownership and social inclusion.

183. Looking at the **Environmental Dimension** of the sustainability of project activities, it must be highlighted, that many project activities in itself propose approaches that aim to make production systems and consequently, the livelihoods of family farmers more sustainable and resilient. These include:

184. (i) Concerning production systems are, PPF II will promote an agroecological transition to diversify and intensify production, integrating a specific approach to environmental issues. This is expected to lead to greater resilience to climate change, as well as greater capacity to maintain productive practices with the potential to increasing and diversifying income;

185. (ii) The construction of PDRLs with a specific environmental focus and with resources earmarked for this purpose should make it possible to carry out collective actions around environmental problems in the rural territory, thus creating mobilization and concrete actions on the part of the beneficiary population;
186. (iii) Investments in sanitation (access to water, sewage disposal and waste recycling pilots) will guarantee year-round access to these resources, allowing the consumption of water of improved quality and quantity, both for human use and for agricultural production.
187. Important elements in the **Economic dimension** contributing to the project's sustainability are:
188. (i) Activities to strengthen the capacities of farmers' organizations and their infrastructures will be key to improving access to markets on a more continuous basis, allowing for a better valuation of products and an improvement in family incomes;
189. (ii) The introduction of agroecological practices should help to reduce the use of commercial inputs and consequently production costs. Added to improved mechanization, it is expected to significantly increase the economic sustainability of family systems;
190. (iii) Technicians from the project and from ATER organizations will be trained to use a tool for preparing PDRLs and PNs that uses profitability calculation principles. Given that all PDRLs and PNs will be drawn up in this way, the project will help to strengthen these new capacities to generalize the approach based on these principles;
191. (iv) Social Technologies for energy generation will guarantee a reduction and efficient use of natural resources in the long term, as well as monetary savings for families.
192. Finally, the elements of the **project approach and strategy dimension** contributing to the project sustainability are:
193. (i) Strengthening the knowledge and expertise of public and private in-person and remote ATER technical teams working in the state will be a strategic contribution to continuing the activities implemented by PPF II;
194. (ii) Encouraging social participation at all stages of the Project, based on the use of specific methodologies and tools for women, young people and the PCT, should strengthen the ownership and sustainability of the Project's activities;
195. (iii) The methodology for identifying, elaborating and implementing the PDRLs and BPs including procurement and accountability processes, based on participatory processes and support by ATER, should allow for strong ownership of the activities and organizational dynamics promoted by the Project, a key factor for sustainability;
196. (iv) The various innovations that the Project will help to develop will aim towards providing adapted solutions and strengthening the resilience of productive activities and families, and their impact will go beyond the Project area, with medium- and long-term repercussions;
197. (v) The work of KM and SSTC will constitute a key methodological reference for continuing and expanding the Project's activities;
198. (vi) The overall sustainability of the interventions will depend on increasing the production of healthy food, diversification in production, nutrition, and income (by reducing costs and improving prices and sales conditions), greater resilience to climate changes and shocks.

3. Risks

H. Project risks and mitigation measures

199. **Country context.** In the macroeconomic sphere, there is a substantial inherent risk and a moderate residual risk that the Project will have difficulty mobilizing the Government of Ceará's counterpart. However, the design period coincided with the drafting of the state's 2024-2027 Multiannual Plan, in which the Project is mentioned as a priority action of the Government of Ceará, guaranteeing budget provision for a counterpart. In addition, the risk will be mitigated by the fact that the counterpart funds will come from various sources, mainly from other programs and policies of the SDA and other secretariats, thus diversifying the sources and reducing the risk.
200. **Environmental context.** Regarding vulnerabilities to environmental conditions, the Project presents a substantial inherent risk and a moderate residual risk. The main environmental risks that could affect the Project are water scarcity, irregular rainfall patterns, high temperatures and forest fires. To mitigate these risks, the Project will support environmentally sustainable agroforestry practices (agroecology) and help farmers modify their production systems if they use unsustainable practices (e.g., use of fire and overgrazing). The Project will also contribute to increasing forest cover with reforestation practices and the recovery of degraded areas. Component 2 will support the improvement of water availability through the promotion of social technologies for access to water, such as cisterns for agricultural production, family grey water reuse systems, sanitary modules with treatment, community access to rural water, and community water reuse for production.
201. **Climate context.** In terms of vulnerability to the impacts of climate change, the Project has a substantial inherent risk and a moderate residual risk. Climate models point to a significant increase in temperature and frequency of extreme events in Ceará, as well as a drop in the amount of rainfall. These changes will negatively impact plant and animal production, productivity, and biodiversity, as well as exacerbating problems resulting from water scarcity and fires. The tendency is for family farming incomes to fall, contributing to an increase in inequality, exacerbating existing conflicts (e.g., access to water) and migratory

flows from rural areas to the city. To mitigate these risks, the Project will support the development and adoption of the following agroecological practices: i) recovering pastures and agricultural soils, improving the supply of environmental services such as rainwater interception and storage; ii) promoting, via ATER, polycultural systems (more resilient than conventional monoculture systems) with animal and plant species adapted to the social and environmental conditions of the region; iii) strengthening production chains; iv) treating and using animal waste properly; and v) agricultural production adapted to climate change. In addition, solutions will be promoted to provide access to water of better regularity and quality for communities.

202. **Procurement.** The Project presents a moderate risk in procurement. The government informed that it will continue the partnership with IICA – Inter-American Institute for Cooperation on Agriculture, for the selection and hiring of individual consultants to support the UGP, because this type of agreement brings greater legal security for personnel hiring.
203. Of the international cooperation organizations that support projects in Brazil, IICA is the one specialized in agriculture and has already carried out several IFAD and World Bank projects under the procurement rules of these financing entities. It will be selected directly as there is no other alternative organization.
204. Other procurement activities will be carried out by CEL 04 - Special Tender Commission of the State of Ceará, specialized in the procurement rules of international financial organizations. During the execution of the previous phase, IICA and CEL 04 demonstrated responsibility and transparency in carrying out procurement. The project will finance the productive part by establishing "agreements" with farmers' associations. These associations will be responsible for carrying out procurement (request for quotation method), but the project will train and support the associations for this purpose. The system used meets all responsibility attribution and transparency requirements required by FIDA and national laws. The government mentioned the need to hire an entity specialized in field labor. A competitive selection must be made, with criteria that verify capacity, responsibility and systems that promote transparency.
205. The structuring of the Project will be complex, but it brings the experience of the previous phase, which was successfully completed, and the participation of experienced actors in international procurement with satisfactory systematization of processes (PGE/CE - Attorney General of the State of Ceará and IICA and by an entity that provides technicians and fieldwork after the selection process). The arrangement will also include a large part of the team that worked in the previous phase with the ability to pass on knowledge to new employees. As in the previous phase, the project will follow IFAD procurement rules with exceptions, such as the selection of service providers to provide rural technical assistance that will follow national requirements but will include evaluation criteria, anti-corruption and anti-harassment IFAD policies and IFAD eligibility self-certification form.
206. **Environmental, Social and Climate Impact.** Regarding resource efficiency and pollution prevention, PPF II presents substantial inherent risk and moderate residual risk. Among the risks are: i) the Project may support small-scale processing facilities for agricultural products that will produce effluents; ii) 60-80% of the energy used for cooking in the Project area comes from firewood; iii) Component 2 may support groundwater extraction on a small scale, even if not significantly; iv) rural producers may request the purchase of soluble fertilizers and pesticides, as a way of guaranteeing their production and income, with negative impacts on the atmosphere, soil and biodiversity; and v) the Project will also support small-scale livestock production, so there may be an increase in herd size.
207. The following mitigations are proposed for each of the identified risks: i) the agricultural processing units will comply with current Brazilian environmental licensing and plant and animal health standards that require the proper treatment of these effluents; ii) the Project will support reforestation and the restoration of forest areas, with a positive impact on the supply of firewood and the promotion of eco-efficient stoves will tend to reduce the demand for firewood; iii) Water extraction and well drilling is regulated by the government of Ceará through its Secretariat of Water Resources, which assesses the availability of water before granting authorization for new abstractions; iv) the Project will promote Integrated Pest Management and provide training for ATER teams on the proper use of authorized pesticides according to the WHO classification, the Project will focus on green fertilizers and will not encourage pesticides; v) agroecological practices provide for animal production to be in accordance with the carrying capacity of the environment, including, therefore, that of the pastures. The Project will support the breeding of small animals (mainly goats and sheep) and their association with ecological pasture and fodder production practices (e.g., silvopastoral systems).
208. Regarding the vulnerability of target populations and ecosystems to climate variability and risks, the Project has substantial inherent risk and moderate residual risk. The implications of climate change for the rural population in the semiarid region of Ceará can be summarized as follows: loss of employment, migration, loss of access to land, loss of production, livestock, and income. There are services to help the population, such as funding for cisterns, agricultural insurance, and water trucks, but their reach is limited, among other reasons, by land insecurity and the lack of environmental regularization. To mitigate these risks, PPF II aims to increase the climate resilience of target populations and ecosystems. The Project will promote the adoption of more diverse and resilient agroecological systems, using animal and plant species that are better adapted to environmental conditions and their climate change trends. It will also promote water security for its beneficiaries and encourage access to and storage of water with cisterns for agricultural production, family water reuse, sanitary modules with treatment, among other social technologies.
209. **Start-up and implementation delays:** The PPF I suffered from start-up delays which affected its performance in the initial three years of project implementation. This will be mitigated mainly by the fact that phase II will use the capacity and knowledge acquired in the previous phase in the technical areas but also in procurement, financial and managerial. The fact that IFAD has also build a solid partnership with various spheres of the Government of Ceará and beyond SDA will be key in terms of taking immediate action and receiving support in case of delays. The building of alliance and partnership with partners in Ceará such as civil society organizations, research organizations such as IPECE, members of the State Assembly and directly with the Office of the Governor will serve as mitigation measure. Part of the PMU team of the PPF I is still operational, which ensures that prior documentation, such as terms of references for major tenders, and necessary preparatory work before project start-up, is initiated well before project entry-into-force. Finally, the PPF II also includes institutional capacity building of the PMU teams (see

Subcomponent 3.5) in key areas for project management.

210. The inherent and residual financial management risk is classified as moderate, Main risks identified are: i) Timing differences AECID financing and IFAD loan which could affect the availability of funds and delay project implementation; ii) Delays in signing agreements with third sector entities for technical support (ATER) resulting in delays of program implementation; (ii) delays in the disbursement of gvt funding affecting project implementation. iii) Producer Families/Family Farming Organization implement the Local Rural Development Plans (PDRL) may have weak administrative and may have challenges around opening of bank accounts and report on the use of funds, which could delay disbursements, implementation and reporting; iv) use of auxiliary spreadsheets for budget monitoring by component category and financier and preparation of quarterly IFR resulting in high risk of human error; v) Delays or incomplete recording of indirect or in kind counterpart funding from SDA
211. The applicable mitigation measures are: i) Close Coordination between AECID and IFAD during negotiations and on signing and approval of respective financing agreements; ii) SDA to ensure timely submission of request for fiscal space and counterpart funds complemented by ongoing Coordination by SDA and IFAD with Secretaria da Fazenda (SEFAZ) Treasury to ensure timely disbursement of Counterpart funding; iii) Terms of reference for hiring of Third sector Organization for ATER with No Objection IFAD as a condition for first disbursement and PIM which includes clear provision around approval, disbursements and reporting on Local Rural Development Plans (PDRL) with NO IFAD and AECID as a condition for first disbursement; and ensure sufficient staff is assigned to accompany the implementation and reporting on Local Rural Development Plans (PDRL) iv) Adaptation of SDA system to allow for monitoring by component, category and source of funding and IFRs based on data from the SIAFE/CE system as part of Special Covenant in FA v) Establish and document in the PIM clear criteria for recording and valuing government counterpart financing from gvt and beneficiaries.

I. Environment and Social category

212. The Project has a moderate environmental and social category.
213. Regarding environmental risks, there are moderate risks related to: i) the possibility of increased encounters with wildlife as a result of the ecological restoration processes, which may create more favorable foraging niches for these species; ii) the acquisition of natural resources as inputs for the agroforestry activities supported by the Project; iii) the acquisition of agrochemicals (pesticides and fertilizers) - although the agroecological approach proposed by the Project does not require this type of input, its use is quite common and is part of the production strategies normally used by farmers; and iv) support for sheep and goat husbandry, which can contribute to the common problem of overgrazing. Deforestation already exists in the Project region, converting Caatinga areas into pasturelands. The Project is unlikely to increase this pressure, as it will focus on agroforestry systems that preserve the original vegetation.
214. For the environmental, social and climate management of the Project, the Environmental, Social, and Climate Management Framework (Annex 5b) was elaborated, with a detailed description of the risks and management measures to be implemented by the Project. The Project will develop an Environmental, Social and Climate Management Plan (ESMP) to manage these risks and will include measures to avoid the purchase of inputs that do not comply with standards relating to sustainably sourced natural resources and harmful agrochemicals. The development of the ESMPs will take place concurrently with the development of each PDRL. These plans will help design the Environmental PDs to promote and encourage the adoption of agroecological practices for diversified production. All the measures to mitigate risks and impacts are well known and should not pose a challenge for state institutions, which have extensive experience in applying social and environmental safeguards to projects with external funding, as well as a comprehensive legal and institutional framework to deal with all the issues mentioned above.
215. Regarding social risks, there is a moderate risk related to the presence of indigenous peoples and traditional communities with their own knowledge and ways of life. The Project will develop a Free, Prior and Informed Consent (FPIC) Implementation Plan to implement and strengthen processes for the effective participation of indigenous peoples and traditional communities in the planning and execution of Project activities. During the design, an Indigenous Peoples Plan Framework was elaborated (Annex A). The Project will also develop a Gender, Youth, Social Inclusion and Nutrition Strategy (preliminary strategy available in Annex K), which will contribute to mitigating any risks related to the inclusion, benefit, and empowerment of the target groups and to ensuring their effective participation and empowerment.

J. Climate Risk classification

216. The Project's climate risk category is substantial. The factors that justify this assessment are:
217. i) the exposure of the target population to natural hazards, especially the temporal and spatial variability of precipitation, high temperatures and droughts that can negatively affect productive activities and biodiversity; ii) the level of poverty of the target population and their dependence on agriculture for their food security and income; iii) the relative lack of access of the target population to instruments, resources and public policies aimed at strengthening their capacity to adapt to climate change. The Project will prepare a Targeted Adaptation Assessment (Annex E) to identify the possible impacts of climate variability on the relevant Project activities in detail and propose measures for their management and mitigation.

4. Implementation

K. Organizational Framework

a. Project management and coordination

218. The SDA will be the Project's executing agency. The PMU will be located in a specific location at the SDA, in Fortaleza, and will take on the Project's implementation, management and monitoring activities.

219. The PMU's key (minimum) team, exclusively dedicated to the Project, will include the following key members: i) Overall Project Coordinator, ii) Manager Component 1; iii) Manager Component 2; iv) Manager Component 3; iv) Procurement and Contracts Specialist, vi) Financial Management Specialist, vii) M&E Specialist, viii) Gender and Diversity Specialist; ix) Youth Specialist; x) Specialist in Nutrition; xi) Specialist in Knowledge Management and South-South and Triangular Cooperation; and xii) Specialist in SECAP (Social, Environmental and Climate Safeguards).

220. To ensure the Project's presence in the field, PPF II focal points will be allocated dedicated physical spaces within designated rooms at EMATERCE's regional offices or outposts. The SDA/PPF II will allocate resources for the necessary renovations to ensure these offices function properly. This configuration should contribute to better integration of the Project's activities with EMATERCE's programs.

221. The Project will have a Strategic Management Committee to foster collective management. This committee will provide technical assistance and general support to the PMU in the main strategic decisions and will consist of representatives from the SDA's coordinating departments and related entities such as EMATERCE, IDACE and CEASA.

222. To inform its deliberations and increase capillarity and articulation with territorial, state, regional and national public policies, PPF II will participate in two other governance spaces:

(i) At a territorial level, the Micro-Regional Forums for Life in the Semiarid will act as Regional Committees, monitoring the activities and providing necessary support for the Project to run smoothly, always seeking complementarities and synergies with other initiatives. These forums already exist in all of Ceará's territories and are made up of civil society organizations (NGOs, associations, cooperatives, unions, churches) and grassroots organizations that are already carrying out actions related to the objectives and target groups of PPF II;

(ii) At the municipal level, the Municipal Committees for Coexistence with the Semiarid, which already operate in the municipalities of the Semiarid of Ceará and support the implementation of programs and policies for coexistence with the semiarid region, will be used as local committees to monitor the implementation of the Project, carry out social control and support the mobilization of the communities and families that will be included in the Project. These committees are made up of social organizations, municipal agricultural secretariats, rural workers' unions, EMATERCE, churches, municipal federations of associations, grassroot and producers' organizations, among others.

b. Financial Management, Procurement and Governance

223. SDA has an adequate structure for the Project and sound arrangements for financial management with mature policies and procedures and systems and extensive experience with implementing similar IFAD and World bank financed projects.
224. **Financial management organization and staffing** Within the SDA a dedicated Project Management Unit (PMU) will be established responsible for project financial management, under the guidance of SDA Planning Coordination (CODIP) and Financial Administrative Coordination (COAFI) with two dedicated finance staff. PMU staff will be responsible for financial management of the project in particular: (i) Maintaining accurate and complete accounting records ii) Ensuring adequate levels of internal control; (iii) Submitting the quarterly IFRS and presentation of justifications of expenditure disbursement requests based on the same; (iv) Preparation of annual financial statements; and (v) Coordinating timely submission of external audit including all funding sources and in accordance with Handbook for Financial Reporting and Auditing of IFAD-Financed Projects.
225. **Budgeting** The resources needed to implement the project, AECID and IFAD loans and Government counterpart funding, will be included by the SDA in the Annual Budget Law (LOA) and the Multi-Year Plan (PPA) which are submitted by Governor's office to State legislative assembly for approval The State Secretariat of Finance SEFAZ will be responsible for including approved budgets in SIAFE-CE system,
226. **Flow of Funds** SEFAZ will be responsible for administering the Project's designated accounts and processing payments from the project operational accounts based on instructions of PMU. The use of the SIAFE-CE system is obligatory for payment processing and incorporates adequate measures to control user access based on user roles and responsibilities.
227. **Accounting Systems and Financial Reporting mechanisms** All financial transactions will be recorded in the SIAFE-CE system, which allows for tracking of expenditure by funding source through the use of cost centres and by category and component through the chart of accounts. An auxiliary financial system interfaced with SIAFE-CE will be developed before entry into force, which allows for: i) accounting for all sources of funding including the non-financial counterpart, by disbursement category; ii) Generation of budget versus actual reports by Category and component; iii) Generation of the interim financial reports (IFR) as required by IFAD for justification of expenditure and requests for disbursement.
228. IFAD will accept the application of accounting standards as per Law No. 4.320 which mandates the use of accrual accounting based on standard set by Federal Accounting Council which as per IFAC evaluation of adoption status is aligned with International Public Sector Accounting Standards (IPSAS).
229. **Internal Controls** Internal control will be ensured by establishing the segregation of duties, periodic reconciliation of accounts, approval levels for expenditures as established in SDA manuals and policies.
230. A large portion of financing used towards the financing of Local Rural Development Plans (PDRL) which are implemented by farming families or rural farming organizations and are "non-reimbursable" and include a monetary or non-monetary counterpart from the beneficiaries. Transfer of funds for Local Rural Development Plans (PDRL) will be directly from SDA to the farmers organizations, based on approval process as documented in the PIM. Third sector organizations will be hired in a competitive bidding process to provide technical support to the design, implementation, and administrative aspects of use of funds of the plans of Local Rural Development Plans (PDRL).
231. **External audit** The State Courts of accounts is experienced in the performance of externally financed projects. It remains to be confirmed before entry into force whether State Court of auditors will be able to include the external audit of the projects in their workplan.
232. **Extensive use of country systems** is foreseen consisting off a PMU embedded in the SDA structure, inclusion of project in Gvt of Ceará annual budget approval process and the use of the state of Ceará SIAFE-CE system for payment processing. In addition, the project is subject to internal audits, transparency laws and anti-corruption measures as carried out and overseen by the State General Controller and Ombudsman.

Financial management

233. The SDA has an adequate structure for the Project and solid arrangements for financial management with mature policies, procedures and systems and extensive experience in implementing similar projects financed by IFAD and the World Bank.
234. Within the SDA, a dedicated Project Management Unit (PMU) will be established, responsible for implementing the Project under the guidance of the SDA Planning Coordination (CODIP) and the Financial Administrative Coordination (COAFI), with two dedicated finance officers. The PMU team will be responsible for the financial management of the Project, in particular: (i) maintaining accurate and complete accounting records; (ii) ensuring adequate levels of internal control; (iii) submitting quarterly IFRs and justifications for expenditure disbursement requests based on them; (iv) preparing annual financial statements; and (v) coordinating the timely submission of the external audit, including all sources of funding and in accordance with the Manual for Financial Reporting and Auditing of IFAD-Funded Projects.
235. The State Secretariat of Finance SEFAZ will be responsible for including the approved budgets in the SIAFE-CE system, administrating the Project's designated accounts, and processing the Project's payments and disbursements, based on the PMU's instructions
236. A large part of the funding will be used to finance Local Rural Development Plans (PDRL), which are implemented by farming families or rural family organizations and are "non-reimbursable" and include a monetary or non-monetary counterpart from the beneficiaries. The transfer of funds for the Local Rural Development Plans (PDRL) will be made directly from the SDA to the farmers' organizations, based on the approval process as documented in the PIM. Third sector organizations will be contracted in a competitive bidding process to provide technical support to the design, implementation and administrative aspects of the use of funds from the Local Rural Development Plans (PDRL).
237. Extensive use of the country system is planned, including the inclusion of the project in the Ceará government's annual budget approval process, the use of the Single Treasury Account, the SIAFE-CE system of the State of Ceará. In addition, the project is subject to internal audits, transparency laws and anti-corruption measures, as carried out and supervised by the State Comptroller General's Office and the Ombudsman's Office.
238. The State Court of Auditors (TCE) has experience in carrying out externally financed projects. It has not yet been determined whether the TCE will be able to include the external audit of the Project in its work plan, this will have to be determined before the Project comes into effect.

Procurement and Governance

239. The governance of Procurement will be the responsibility of the PPF II UGP. The total value of the 18-month PP is 9.8M EUR. 5M EUR in Works (e.g. construction of cisterns), 2.8M EUR in Goods and 2M EUR in Consultancies (e.g. Rural technical assistance services). The procurement agreements will focus on:
240. For the selection of consultants for the UGP: A new agreement will be signed with IICA – Inter-American Institute for Cooperation on Agriculture, which already worked on the previous phase of the PPF. IICA will be responsible for selecting and hiring consultants to advise the UGP core team. Selections will follow IFAD procurement guidelines and all Terms of Reference must be submitted to IFAD for No-Objection. Contracts can be in the Brazilian CLT modality, yearly and renewable for satisfactory performance, but for payment purposes they must include monthly activity reports (time-based contracts, following IFAD procurement rules). The PIM will detail the selection method for time-based contracts for consultants.
241. Purchases of goods and contracting of common services (equipment and logistical items for events): will be incorporated into the agreement with IICA and carried out in accordance with IFAD Regulations.
242. Selection of field organizations (ATER) and/or other services: the PMU will select ATER services through CEL 04 in accordance with IFAD rules. These partner entities must meet the compliance requirements of FIDA and AECID policies. The Terms of Reference must be submitted to IFAD for its No-Objection. CEL 04 (Special Bidding Committee nº 04), will carry out the selection of consultancy for companies, goods, works and common services.
243. All contracts within the scope of PPF II for the provision of services, whether technical services or individual or business consultancies (PMU Consultants, Field Technicians, ATER), must contain a term extension clause linked to the assessment of satisfactory performance of the services provided, before renewal, under penalty of termination/discontinuation. Contracts must also contain the IFAD eligibility self-certification form and anti-corruption and anti-harassment policies. PIM will provide details on these items.
244. Any publicity of activities (on websites, pamphlets, magazines, newspapers, media, etc.) must be authorized by the PMU and refer to the Project, the Government of Ceará, IFAD and AECID. The respective agreements with management support entities must contain a clause that determines this way of operationalizing the information as determined by the Project Manual.

L. Planning, M&E, Learning, KM and Communication

a. Planning, M&E, Learning, Knowledge Management and Communication

M&E

245. It will be responsible for planning, monitoring, verifying, and validating the records of physical activities in the field, including beneficiaries and activities, as well as planning and carrying out the Project's evaluation studies. It will have the function of supporting managers in planning and monitoring the activities to be implemented in the field.

246. **M&E team.** It will consist of two professionals, one senior and one full-time, both with exclusive dedication, and will be based in the PMU. The PPF II team will be responsible for Planning, Monitoring and Evaluation, as shown below:

247. **Planning.** Stage of drawing up and monitoring the following documents or tasks:

(i) Monitoring and Evaluation Plan - M&E Plan: drawn up at the start of the Project, based on the document in Annex 8 of the PDR. Its purpose is to define the guidelines to be followed during implementation. For example, the presentation of M&E processes, the dictionary of indicators and the methodology for filling the Logical Framework (LF), the definition of evaluation studies for measuring results and impact indicators (including the Core Outcome Indicator- COI), monitoring, among other topics;

(ii) Annual Workplan and Budgeting (AWPB): With the support of the M&E team, the AWPB will be drawn up annually in a participatory manner, involving all the professionals, especially those responsible for the Project components. It consists of the budget forecast for the activities to be carried out in the following year, and its planning will be in line with the objectives and expected results set out in the design and PIM. The activities involving the families must present the physical quantities and must be related to an LF indicator, and the target will be included for the year in question;

(iii) Semi-annual Progress Report: Should be sent to IFAD every six months, containing a detailed description of the activities carried out in the last six months of the Project, including information on physical and financial progress by component and sub-component, and to what extent they contributed to meeting the Project's targets.

248. **Monitoring.** Definition of the means and methods that will be able to obtain information on the implementation of the Project. Monitoring will be carried out based on LF indicators, which include process, effect and impact indicators.

(i) Monitoring systems: PPF II will use the M&E system developed in phase 1 of the Project, which has a desktop and tablet/smartphone interface for registering information in the field. It allows for the registration of families and PDRLs. For the system to be 100% suitable for PPF II, adjustments will be made at the start of year 1 of the Project. The system should allow the progress of LF indicators to be monitored, disaggregated by gender, youth, and PCT. It should also allow the inclusion of geographical coordinates of families and activities.

249. **Evaluation.** Its aim is to verify and measure the changes that have taken place in beneficiary families at different levels, for the purposes of monitoring results and impact indicators. The COI indicators will be evaluated according to IFAD methodology.

(i) Impact Evaluation: It consists of three phases: Baseline, Mid-term Evaluation and Final Impact Evaluation. The evaluation will be carried out on a sample of families belonging to two groups: i) Treatment Group, comprised of a sample of beneficiary families; and ii) Control Group, a sample of non-beneficiary families who are similar to those in the treatment group (in social, territorial, productive, environmental terms, etc.). In addition to the impact indicators, the survey will also provide answers to the IOC indicators, in accordance with IFAD's methodology;

(ii) Evaluations of results: Specific studies for activities not included in the impact assessment study, such as Component 3 activities. The EX-Act tool will be applied in the intermediate phase and at the end of the Project to validate the real benefits of reducing CO2 emissions.

250. **M&E budget.** The budget includes financial resources for hiring the team, conducting the evaluation studies (including impact), and updating the system.

251. The information generated by the M&E system will be widely used by the Knowledge Management and Communication (KM&C) team, in the process of systematization, communication and dissemination, serving as inputs to influence public opinion and influence the political sphere.

Learning, knowledge management and communication

252. An integrated Knowledge Management, SSTC and Communication plan will be elaborated in a participatory manner at the start of the Project, bringing together the initial demands for studies, research, and south-south exchanges, as well as the main communication and dissemination strategies to be developed. This plan will be reviewed annually and reflected in the AWPB for proper budget execution.

253. Based on the biannual progress reports and systematic M&E activities, the innovations, good practices, and social technologies implemented will be catalogued and disseminated, initially through short dissemination materials (such as manuals, booklets, newsletters, and short videos on social networks) and later in systematization publications and seminars. The plan will also be fed by contracting and disseminating studies and research based on the demands of the Project and its partners.

254. The data and evidence produced will support the PMU's decision-making processes, SSTC initiatives, policy dialogue and accountability to partners and territories, as well as publicizing activities to the media and public opinion.

255. The activities included in the integrated plan will be managed directly by the PMU, which will have the support of a Knowledge Management, Communication and SSTC Specialist. The managers of the different components of the Project will be responsible for feeding into the plan and monitoring the progress of the planned activities. The integrated plan must be submitted to IFAD for non-objection.

b. Innovation and scaling up

256. The Project's main areas of innovation are: support for digital agroecological ATER, Environmental PDs, the existence of a sub-component dedicated to gender and youth (Sub 1.3), solutions for collecting, treating, and reusing water, encouraging the development of machinery and products and services dedicated to family farming.

257. The Project will support investment in micro-enterprises that provide machinery, services or products customized to the local context, to assist in the agroecological production of family farmers, with a focus on young entrepreneurs and women. The main activities financed by this subcomponent are:

- (i) **Agroecological Markets and Local Biodiversity:** Promoting nutrition based on local biodiversity, through the development of products derived from native/traditional species, the extraction of oils and essences, the establishment of agroecological fairs, and the supply of products to supermarkets, restaurants, and snack bars, etc.;
- (ii) **Access to renewable energies:** Financing and installation of solar panels, heat pumps, energy efficiency works, etc.;
- (iii) **Soil nutrition and integrated pest/weed management:** production of organic fertilizers and products used in the biological pest and weed control, such as the production of green manure seedlings and seeds, inoculation of natural enemies, production of organic compost, bio-slurries and other bio-inputs;
- (iv) **Technologies for small producers:** Mechanization adapted for family farming, such as tillers and small equipment, specific equipment for agroforestry, etc.;
- (v) **Technologies for Cooperatives and Associations:** machinery and equipment for cooperatives and associations, such as pulpers, dehydrators, dryers, mills, packaging machines, dry solid waste separators and processing machines in general.

258. The criteria for selecting activities will prioritize young people and women from the Project area. Additional criteria will be established in relation to scalability, the right to repair, and economic and environmental sustainability.

259. The Project will also foster the development of digital solutions for small farmers and cooperatives, possibly as additional modules in EMATERCE's Remote ATER application. These modules include:

Digital services for small farmers:

- (i) Digital technical assistance: education, training, and access to tools for agroecological production, such as plant and insect identification, recommendations for green manure or biological pest control, etc.;
- (ii) Information services: Pricing, logistics, weather information and early warning systems, etc.;
- (iii) Financial services: financial management tools and access to financial services such as easy credit and insurance;
- (iv) Digitalization of the supply chain: recording information, planning tools, sharing equipment, shared transport of products and inputs, etc.;
- (v) Access to markets and e-commerce: Sale of products (possible integration with SECAF base), Purchase of inputs, machine rental⁷⁹ etc.

260. Digital services for cooperatives and associations: Resource Sharing, Market Access, Management Tools, etc.

261. The Project will support public bodies such as city halls and state agencies in existing initiatives for sanitation solutions with the potential to produce bio-inputs for the agroecological transition:

- (i) Selective collection of organic waste for composting in urban areas (as seen in the Itapipoca city hall);
- (ii) Collection of dry waste in rural areas;
- (iii) Composting systems for rural families;
- (iv) Reuse of composted sludge from treatment plants (as an example carried out by CAGECE); and
- (v) Biodigesters for human waste with adapted toilets.

262. Sub-component 3.3 will support research and innovation in climate resilience by carrying out small-scale pilot projects. Pilots that achieve good results will be multiplied in other components of the Project where similar solutions are already being implemented, such as efficient stoves in component 2 or the production of bio-inputs for component 1.

M. Project Target Group Engagement and Feedback, and Grievance Redress

a. Project Target Group Engagement and Feedback.

263. During the design, consultations were held with the Governor of the State, the Finance Department (SEFAZ), the Planning and Management Department (SEPLAG), the Agrarian Development Department (SDA), the Environment and Climate Change Department (SEMA), the Technical Assistance and Rural Extension Company of the State of Ceará (EMATERCE), the Agrarian Development Institute of Ceará (IDACE), the Water Supply and Sewerage Coordination Office (COAGUA), the Ceará State Economic Research Institute (IPECE), the São José Phase IV Project (PSJ IV), the State Comptroller's Office (CGE), the State Attorney General's Office (PGE), the Ceará School of Public Health (ESP), the Ivens Dias Branco School of Social Gastronomy (EGSIDB), the Brazil-Africa Institute (IBRAF), the Ceará Water and Sewerage Company (CAGECE) and Itapipoca City Hall. In addition, field visits were conducted to potential beneficiaries in 10 municipalities in the PPF II coverage area.
264. The Stakeholder Participation Plan (Annex x) is a fundamental pillar for the success of PPF II, impacting the sustainability of the interventions and the results obtained. It is an inclusive process that began during the design phase, but which will be implemented throughout the Project cycle on a significant and regular basis.
265. The PMU team will include a safeguards specialist and will receive training on the implementation of IFAD safeguards, Free, Prior and Informed Consent (FPIC), the Environmental, Social and Climate Management Plan (ESCMP), Stakeholder Engagement, and the Grievance Redress Mechanism (Annex D).
266. Stakeholders will be mobilized considering the most appropriate means, depending on their different interests and circumstances, to ensure the effective engagement of all affected or potentially impacted parties. Information on the risks and potential socio-environmental effects of the PPF II must be made available in a timely manner, be complete, accessible and appropriate to the different stakeholders. Whenever the Project intends to involve beneficiaries in general, separate meetings or discussion groups for women will be organized, with the understanding that in mixed groups, although women are present, they may not feel comfortable expressing themselves, especially on sensitive topics such as Gender-Based Violence (GBV)⁸¹.
267. The resolution of complaints and denunciations must be handled confidentially, to protect the whistleblower, and within a short period of time from receipt, as provided for in national legislation. The process will include review, analysis/evaluation, and the implementation of a common solution satisfactory to all involved parties. The Project will keep a record of complaints and grievances, seeking to extract lessons to prevent conflicts and promote greater efficiency and social sensitivity. 248. In line with IFAD's Policy on Engagement with Indigenous Peoples⁸², the FPIC process for traditional, indigenous and quilombola communities is an instrument for ensuring the full and effective participation of these groups in the design, development, implementation and evaluation of Project activities (see Annex H - FPIC Plan).

b. Grievance redress.

268. In accordance with IFAD's environmental and social policies, a public and accessible complaints and grievance mechanism (GRM) will be made available to the Project's target groups for individuals, authorities or community representatives affected by the implementation of PPF II. This mechanism must be easily accessible to the population and have a rapid resolution, ensuring that complaints submitted are quickly analyzed and that situations are mutually agreed upon to the satisfaction of the parties involved (see Annex D).
269. The project will take advantage of the SDA's consolidated system for receiving and handling complaints and denunciations, adopting the existing Ombudsman channel. PPF II will promote an ongoing program to disseminate integrity policies, as well as training and guidance on the use of whistleblowing tools to communities and beneficiaries. All people potentially affected by the Project's activities will be informed and given clear instructions on what procedures should be followed for registering reports and complaints. This information will be made available in plain language. Grievance redress will be part of the review questions of IFAD's annual supervision missions.
270. Complaints can also be submitted through IFAD's Complaints Procedure, which allows individuals and communities to contact IFAD directly and make a complaint if they believe they are or may be adversely affected by an IFAD-funded project/program that does not comply with IFAD's Social and Environmental Policies and their mandatory aspects.
271. In line with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), IFAD will have zero tolerance. PPF II will ensure that adequate safeguard measures are in place for a safe and harassment-free work environment, including sexual harassment and free from sexual exploitation and abuse in its activities and operations⁸³. The Project shall record reported cases and communicate them to the competent authorities in the country, as provided for in national legislation, so that they take appropriate action based on the evidence and also communicate IFAD.

N. Implementation plans

a. Supervision, Mid-term Review and Completion plans.

272. Negotiations on the Financing Agreement between IFAD and the government will take place after the Project has been approved by the SDA and IFAD's internal review bodies, and before the Project is presented to IFAD's Executive Board. Once approved by the Council, the Financing and Guarantee Agreement will be signed. The government will make efforts to monitor the approval process both in the Senate and in the Ministry of Finance and other internal federal bodies. Due to the long lead time for contract negotiations, the Government of Ceará will make special efforts to schedule negotiations as soon as possible.
273. Project preparation activities to be carried out by the executing agency (SDA) between the signing of the Financing Agreement and the start of operations include: i) confirming the budget allocated for the first year; ii) designating the International Technical Cooperation Agency responsible for administering contracts for staff, services, consultancies, among others, to support Project activities; iii) completing/adapting the PIM; iv) updating the First AWPB (Annex 6) and the PP for the first 18 months of Project operation (Annex 7); v) preparing the disbursement plan; vi) refurbishing the PMU's physical facilities; vii) appointing the PMU's key staff; viii) drawing up the M&E and knowledge management and communication plan; ix) officially launching and publicizing the Project; and x) preparing the Project kick-off workshop.
274. To facilitate Project start-up, IFAD provides the following financing mechanisms: i) Retroactive financing⁸⁴: allows for the eligibility of expenditures from counterparty sources and the IFAD loan upon approval by IFAD's Quality Assurance Group (QAG) Review; and ii) Initial expenditures: under this mechanism, the Project may receive an advance before the pre-disbursement conditions are met⁸⁵.

Supervision, mid-term review and conclusion

275. The Project will be supervised directly by IFAD under the current guidelines for direct supervision, in dialog with the executing entity. The IFAD Office in Salvador will be directly responsible for supervising and supporting the implementation of the Project, as it was also responsible for identifying and designing the operation and partnership with AECID.
276. The missions will review progress in achieving the objectives, the performance of the Project and compliance with the contractual conditions. The following missions will be carried out during PPF II: i) a start-up mission after signature; ii) at least one Supervision Mission and one Implementation Support Mission annually; iii) a Mid-Term Review Mission (MTR), possibly in year three; and iv) the closing mission to prepare the technical and administrative closure and plan the Project Completion Report (PCR).
277. To ensure alignment with the other IFAD projects in Ceará, PDHC III and Sertão Vivo (PCRP), supervision or implementation support missions can be carried out in a complementary way between projects to exchange activities and knowledge and for greater efficiency.

Footnotes

- 1 IPECE (2020). GDP. Special Tables. <https://www.ipece.ce.gov.br/pib-tabelas-especiais/>.
- 2 IPECE (2020). Report no. 203, January/2022. Ceará's human development before COVID-19. Available at : https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2022/01/ipece_informe_203_14_jan_2022.pdf.
- 3 IPECE (2020a). Enfoque Econômico nº 218 - Analysis of income inequality in the state of Ceará between 2012 and 2019. https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2020/05/Enfoque_EconomicoN218_20_05_2020_.pdf.
- 4 In terms of territory, the state of Ceará is the 17th largest in Brazil and the 4th largest in the Northeast region. In terms of population, it is the 8th most populous in the country and the 2nd in the Northeast region. Source: IBGE (2021). Cities and states: Ceará.
- 5 IBGE. Agricultural Census, 2017.
- 6 IPECE (2023). Enfoque Econômico no. 262 - Reducing multidimensional poverty in Ceará: a comparison of the IBGE's 2008-2009 and 2017-2018 POFs. Available at: https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2023/10/Enfoque_Economico_N262_181023.pdf.
- 7 Silva, Vitor; Araújo, Natália (2021). Income and poverty indicators in Ceará in 2020: what the PNAD Covid-19 data say. LEP, Economic Development in Focus, Available at: <https://lepcaen.ufc.br/wp-content/uploads/2021/03/lep-deemfoco-31mar2021.pdf>.
- 8 Cavalli, S. B., Soares, P., Martinelli, S. S., & Schneider, S. (2020). Family farming in times of Covid-19. Revista de Nutrição, 33. Available at: <https://www.scielo.br/j/rn/a/XMPqn89bG674KkCpNtKhjqs/?format=pdf&lang=en>.
- 9 Data from SEINFRA (2017) for the Ceará Statistical Yearbook (2017), prepared by IPECE. Table 15.1.4 Water and sewage service coverage rates, by household situation, according to municipalities and districts - Ceará - 2014-2016
- 10 IBGE. Agricultural Census, 2017.
- 11 <https://www.ceara2050.ce.gov.br/>
- 12 The Plan brings together already consolidated programs such as conditional cash transfers for social and productive inclusion (Bolsa Família and Fomento Rural), access to water (Cistern Program) and government purchases (Food Acquisition - PAA and School Feeding - PNAE) and new initiatives such as solidarity kitchens and women's productive farms.
- 13 Hermano, Rocha, 2022.
- 14 PENSSAN, 2022.
- 15 BENIGNO, Gabriel Oliveira Loiola; VIEIRA, Diego Mota; OLIVEIRA, Jessica Eloísa de. The gender gap in Brazilian states and stakeholder analysis of the National Council for Women's Rights. Revista de Administração Pública, v. 55, p. 483-501, 2021. Available at: <https://www.scielo.br/j/rap/a/xkJn9DbJmFbXnMVvcmYdyFG/?format=pdf&lang=en>.
- 16 In terms of area, the average area (hectares) of establishments managed by men is 43.4% larger than those managed

by women (13.6 x 7.7ha). Source: IBGE (2017). Agricultural Census.

17 Data from IBGE (2017) shows that 86.5% of female family farmers in the semi-arid region of Ceará produce for their own consumption, compared to 80.7% of men.

18 In the Northeast in 2019, women spent almost twice as much time caring for people or doing household chores as men (21.8 hours compared to 10.5 hours). Source: IBGE, PNAD-C, 2019. https://biblioteca.ibge.gov.br/visualizacao/livros/liv101784_informativo.pdf

19 Agricultural Census (2017).

20 UN Women, 2022.

21 In 2019, the number of conflicts in the countryside was the highest in 15 years in Brazil; around 5 every day. 102 rural women suffered some kind of violence. Of the 32 rural women killed, nine were indigenous, seven of whom were leaders, and seven were landless (three leaders). Source: Pastoral Land Commission (CPT). Report "Conflicts in the Countryside Brazil 2019".

22 IPEA (2023). Atlas of Violence. Available at: <https://www.ipea.gov.br/atlasviolencia/artigo/250/atlas-da-violencia-2023>.

23 Idem.

24 Brazil's Youth Statute - Law No. 12,852 of August 5, 2013 - defines young people as those between the ages of 15 and 29.

25 IBGE (2022b). Synthesis of Social Indicators, 2022. <https://biblioteca.ibge.gov.br/visualizacao/livros/liv101979.pdf>.

26 Although young people are defined by the Youth Statute as those aged between 15 and 29, the official data from the Agricultural Census does not have this breakdown. In this context, we opted to analyze the data for the under-35 age group.

27 LIMA, S.M.V. Juventude Rural e as Políticas e Programas de Acesso à Terra no Brasil: Recomendações para Políticas de Desenvolvimento para o Jovem Rural. Brasília: MDA, 2013.

28 IBGE (2017). Agricultural Census.

29 Pronaf Jovem was created with the aim of encouraging young people to stay in the countryside. However, this funding has not materialized in practice, as evidenced by the fact that, between 2016-2019, only 240 Pronaf Jovem contracts were signed in the entire Northeast region. Source: Public Policy Monitoring and Evaluation Council. Evaluation Report: National Program for Strengthening Family Farming, 2020. Available at: <https://www.gov.br/economia/pt-br/acao-a-informacao/participacao-social/conselhos-e-orgaos-colegiados/cmap/politicas/2020/subsidios/relatorio-de-avaliacao-cmas-2020-pronaf>

30 Traditional Peoples and Communities (PCTs) are culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition. These groups include: indigenous peoples, quilombolas, people of African descent or terreiros, extractivist communities, riverine communities and artisanal fishermen, babassu coconut breakers, shellfish gatherers, caboclos, among others. There may be overlap between these social segments.

31 Quilombolas are descendants of enslaved people who resisted the slave regime and have an ethnic identity with their own cultural values, religious beliefs and means of subsistence.

32 ALMEIDA, Silvio (2019).

33 UN Women, 2022.

34 Cadastro Único (2024).

35 ECLAC, 2014. The Matrix of Social Inequality in Latin America. <https://dssbr.ensp.fiocruz.br/indigenas-negros-e-mulheres-sao-mais-afetados-por-pobreza-e-desemprego-no-brasil-diz-cepal/>

36 Quilombola Nutrition Call (2006). Ministry of Social Development and Fight against Hunger. Evaluation and Monitoring Department.

37 Observatory of LGBTI+ deaths and violence in Brazil. Dossier 2022: Deaths and violence against LGBTI+ people in Brazil. Available at: [Dossiê-de-Mortes-e-Violencias-Contra-LGBTI-no-Brasil-2022-ACONTECE-ANTRA-ABGLT.pdf](https://www.observatorio.org.br/dossie-de-mortes-e-violencias-contra-lgbti-no-brasil-2022-acontece-antra-abgl.pdf).

38 IPCC (2014). Central and South America. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. In: Barros VR et al. (Eds), Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, p. 1499-1566.

39 MAPBIOMAS. <https://mapbiomas.org/desmatamento-queimadas-e-retracao-da-superficie-da-agua-aumentam-o-risco-de-desertificacao-da-caatinga>.

40 IPBES (2018): IPBES regional assessment report on biodiversity and ecosystem services for the Americas. Rice, J., Seixas, C. S., Zaccagnini, M. E., Bedoya-Gaitán, M., and Valderrama N. (eds.). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany. 656 pages.

41 <https://www.al.ce.gov.br/download-file/270673>

42 *These checklists have been simplified for data entry purposes. Please refer to the Mainstreaming Annex in the Project Design Guidelines for detailed guidance and the full criteria.*

43 Gender Equality and Women's Empowerment

44 Productive and Capacity Development Project (Paulo Freire Project - PPF).

45 The full Impact Assessment (IA) for PPF I can be accessed at this link: <https://bibliotecasemiarios.ufv.br/jspui/bitstream/123456789/418/1/Texto%20completo.pdf>. The PPF I Project Completion Report (PCR) can be accessed at this link: <https://www.ifad.org/en/-/brazil-1100001619-paulo-freire-project-completion-report>.

46 USD 1 billion out of which IFAD will finance only 15%. This includes projects recently approved (PAGES, PSI, PCR/P Sertão Vivo, CompensACTION) and under different stages of design in IFAD12 (Parceiros da Mata, PDHC III, PPF II and PROCASE II) will bring the total portfolio close to USD 1 billion. There are also discussions on an additional financing for the PCR/P Sertão Vivo due to strong demand from the Northeast states which could double the size of the project.

47 Cadastro Único (2024) and IBGE (2022), Demographic Census.

48 Cadastro Único, 2024.

49 PENSSAN, 2022.

50 <https://diariodonordeste.verdesmares.com.br/regiao/ceara-e-1-do-nordeste-e-4-do-pais-em-geracao-de-lixo-por-pessoa-1.2990564>

51 Some results from the impact evaluation study are worth highlighting. Comparing the years of 2015 and 2020, the following activities have shown an increase in production: beekeeping (+297%); poultry farming (+79%), sheep and goat farming (+34%), pig farming (+140%). Production increase is related to the appropriation of agroecological practices that reduce the mortality rate of animals, the diversification of fruits and vegetables (polyculture – staggered production) and crop rotation, among others. Production increase is also related to the diversity of species produced. Women have a fundamental responsibility for production diversity. It was possible to infer this from the Agroecological Logbooks (AL) initiative, as participating individuals registered 683 different

products: foods of plant origin (271), animal origin (100) and mixed origin (67), handicrafts (127), seedlings and seeds (53), medicinal plants and preparations (38), and other products (17).

52 For example, the study in collaboration with USP: <https://lac-conocimientos-sstc.ifad.org/documents/262275/0102b72b-56e8-22c2-5916-03ed4bc439f7> or the study in collaboration with Caatinga NGO: <https://drive.google.com/file/d/1Okx-WypHrGcOkUgyDvTvrblvNoiJoiq/view>

53 Market channels to be considered for the sale of agroecological production is institutional purchases by government organizations. Programs such as the Food Acquisition Program (PAA) and the National School Feeding Program (PNAE) are aimed at acquiring production from family farming, giving value to organic production. Finally, it is worth mentioning that in the rural areas of the Northeast. One clear example is organic cotton which was promoted in phase I of PDHC through the alliance with NGO such as ESPLAR in Ceará and which now sell their agroecological cotton for example Vert (now renamed Veja).

54 <http://portalsemiar.org.br/>. SEMEAR was funded by a grant from the Spanish Agency for International Development Cooperation (AECID).

55 Adapting Knowledge for Sustainable Agriculture and Access to Markets (AKSAAM) project run by the Federal University of Viçosa (UFV) <https://aksaam.ufv.br/pt-BR/>

56 Knowledge and Adaptation to Dry Areas Initiative Project (DAKI-SV) executed by Articulação no Semiárido (ASA), with FUNDAPAZ and FUNDE <https://semiaridovivo.org/pt/>

57 Project for the Adaptation of Family Farming to Climate Change (INNOCA-AF) executed by IICA <https://innova-af.iica.int/>

58 The criteria used to delimit the semi-arid region will be those approved by Sudene's Deliberative Council Resolutions No. 107 of July 27, 2017 and No. 115 of November 23, 2017: Average annual rainfall equal to or less than 800 mm; Thornthwaite Aridity Index equal to or less than 0.50; Daily percentage of water deficit equal to or greater than 60%, considering all days of the year.

59 IBGE, 2022. Demographic Census.

60 IBGE, 2017. Agricultural Census.

61 Cadastro Único, 2023. IBGE, 2022. Demographic Census.

62 PENSSAN, 2022.

63 The measured indicators are as follows: agricultural productivity per hectare, agricultural production per inhabitant, use of the harvested area for subsistence crops, crop losses, proportion of families benefiting from Bolsa Família, number of Seguro Safra accessed per 100 rural inhabitants, climatology, normalized rainfall deviation, surface runoff, rainfall distribution index, aridity index and the situation of water sources in the supply systems of urban centres.

64 Specific School for rural education, which uses the alternance pedagogy, combining technical learning with knowledge of everyday community life. Family Training Centers by Alternance (CEFFAs) are known by different names, among them: Rural Community Schools (ECORs); Agricultural Family Schools (EFAs); Rural Family Houses (EFAs) and Sea Family Houses (CFMs).

65 Definition in footnote 20.

66 IFAD Policy on Engagement with Indigenous Peoples: 2022 update. Available at: <https://www.ifad.org/en/-/document/ifad-policy-on-engagement-with-indigenous-peoples>.

67 IFAD Strategy on Diversity, Equity and Inclusion: Update. Available at: <https://webapps.ifad.org/members/eb/138/docs/EB-2023-138-R-12.pdf>.

68 We are using the Portuguese acronym to avoid confusion between documents written in English and Portuguese: *Planos de Desenvolvimento Rural Local (PDRL)*.

69 Environmental Youth Agent Program, <https://www.sema.ce.gov.br/projetos-e-produtos/programa-agente-jovem-ambiental/>

70 To this end, the LEADER approach could be considered: <https://redpac.es/leader>. AECID is available to carry out support activities and to partner with the Directorate General for Rural Development of the Spanish Ministry of Agriculture, Fisheries and Food to support this initiative.

71 Basic sanitation consists of the provision of services related to water, collection and proper disposal of sewage and household waste.

72 Data from Agroecological Logbooks (PPF I) indicate that social technologies for access to water favored an increase in income within PPF I, considering that the average monthly production value for women who have access to cisterns for human consumption is BRL 443.00 while that of those who do not have access to cisterns is BRL 366.00. When it comes to the access to production cisterns, the average value is BRL 533.00, while that of those who do not have access is BRL 335.00.

73 Rural schools in Brazil are present in various formats and modalities: Family Training Centers by Alternance (CEFFAs); Agricultural Technical Schools; Federal Institutes of Education, Science and Technology (IFETs); Agrotechnical Schools; Universities of Rural Areas and Popular Education Projects; these are some of the institutions responsible for developing education in rural areas.

74 Agricultural Family Schools (EFAs)

75 The KM and SSTC activities mentioned here complement those of component 3, focusing on the mainstreaming, overarching, and strategic subjects not covered by the specific scope of AECID's grant.

76 In 2023, the federal government decided to join the International Equals Right Coalition, dedicated to protecting LGBTIQ+ people.

77 The PCR, IFAD's first project with a National Development Bank (NDB), is due to come into force soon and provides for climate resilience actions such as social technologies, renewable energies and agroforestry systems.

78 PDHC III is a federal project that is in the final stages of design, envisaging the provision of technical assistance (TA), TA capacity building and knowledge dissemination. PPF II is similar to PDHC III in its agroecological approach and its strong technical assistance (TA) activities, but it has a distinct and different focus on productive inclusion at the level of farmers' organizations, whereas PDHC III only works at the family level.

79 <https://www.sciencedirect.com/science/article/pii/S0308521X18314914> and

<https://repository.cimmyt.org/xmlui/bitstream/handle/10883/22429/65927.pdf?sequence=1&isAllowed=y>

80 See Framework for Operational Feedback from Stakeholders <https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf?attach=1> and Annex ABC for further details.

81 GBV is a generic term for any harmful act perpetrated against a person's will and which is based on socially attributed (gendered) differences between men and women. The nature and extent of specific types of GBV vary between cultures, countries and regions.

Examples include sexual violence, including sexual exploitation/abuse and forced prostitution; domestic violence; trafficking; forced/early marriage; harmful traditional practices such as female genital mutilation; and honor crimes. Source: UN Women Training Center: Gender Equality Glossary. Available at: <https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey=&sortorder=&fullsearch=0&page=1>.

82 See IFAD Policy on Engagement with Indigenous Peoples <https://www.ifad.org/web/guest/document-detail/asset/39432502>.

83 IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse. Available at: https://www.ifad.org/documents/38711624/42415556/SEA_e_web.pdf/85275c4d-8e3f-4df0-9ed8-cebaacfab128?t=1611326846000.

84 This mechanism allows the government to pre-finance certain expenses and submit them to IFAD for reimbursement or accounting in the case of counterpart once the Project becomes effective and all pre-disbursement conditions have been met. The admissible retroactive financing expenses will be those associated with the hiring of key personnel, initial operating expenses, final preparation of the PIM, hiring of the necessary Accounting System, preparation of the baseline, training or others agreed with IFAD in a specific AWPB.

85 The expenses that may be incurred in this modality are the same as those allowed for retroactive financing. The maximum amount for retroactive financing and start-up costs will be fixed in the Financing Agreement, as well as the corresponding categories in which they can be accounted for.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 1: Logframe

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons receiving services promoted or supported by the project				Project M&E System	Annual	Project M&E Unit	Continuity of public policies and programmes that support rural poverty reduction.
	Males	0	16000	40000				
	Females	0	16000	40000				
	Young	0	4800	12000				
	Not Young							
	Indigenous people	0	1600	4000				
	Non-Indigenous people							
	Total number of persons receiving services	0	32000	80000				
	1.a Corresponding number of households reached				Project M&E System	Annual	Project M&E Unit	
	Households	0	32000	80000				
1.b Estimated corresponding total number of households members				Project M&E System	Annual	Project M&E Unit		
Household members	0	128000	320000					
Project Goal Contribute to reduce rural poverty and improve food security and nutrition for family farming.	Poverty reduction (multidimensional)				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	Continuity of public policies and programmes that support rural poverty reduction/ Non-occurrence of acute drought episodes.
	Percentage of reduction	0	5	20				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective Increase the sustainability of production systems and the resilience of family farmers.	1.2.8 Women reporting minimum dietary diversity (MDDW)				Impact Survey	Baseline, Mid-Term and End of Project	Independent consultancy firm	Continuity of public policies and programmes that support rural poverty reduction/ Non-occurrence of acute drought episodes.
	Women (%)	0	50	50				
	Women (number)	0	3420	8550				
	Households (%)	0	50	50				
	Households (number)	0	6840	17100				
	Household members	0	27360	68400				
	Women-headed households	0	3420	8550				
	Non-women-headed households							
	2.2.1 Persons with new jobs/employment opportunities				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Males	0	200	500				
	Females	0	200	500				
	Young	0	60	150				
	Total number of persons with new jobs/employment opportunities	0	400	1000				
	IE.2.1 Individuals demonstrating an improvement in empowerment				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Young	0	15	15				
	Young	0	410	1026				
	Total persons	0	20	20				
	Total persons	0	2736	6840				
	Females	0	50	50				
	Females	0	1368	3420				
	Males	0	50	50				
	Males	0	1368	3420				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered				Impact Survey - Carbon-Balance Tool (EX-ACT)	Baseline, Mid-term and End of Project	External consultant	
	Hectares of land	0	0	16258				
	tCO2e/20 years	0	0	-1096055				
	tCO2e/ha	0	0	-63.3				
	tCO2e/ha/year	0	0	-3.2				
Outcome C1. Family farmers, young people and rural organizations adopt sustainable environmental practices and improve their production systems, nutrition and access to markets.	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	Maintenance of public policies and access conditions to credit and public procurement/ Non-occurrence of acute drought episodes.
	Total number of household members	0	43776	109440				
	Households	0	80	80				
	Households	0	10944	27360				
	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices				Impact Survey	Baseline, Mid-term and End of Project	Independent consultancy firm	
	Total number of household members	0	41040	102600				
	Households	0	75	75				
	Households	0	10260	25650				
	1.2.4 Households reporting an increase in production				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Total number of household members	0	32832	82080				
	Households	0	60	60				
	Households	0	8208	20520				
	2.2.5 Rural producers' organizations reporting an increase in sales				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Number of Rural POs	0	5	13				
	Total number of POs members	0	364	910				
Women PO members	0	182	455					

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Men PO members	0	182	455				
	Young PO members	0	55	137				
	Indigenous people PO members	0	18	46				
Output C1. Families and their organizations receive inputs for diversified and environmentally sustainable production.	Families benefiting from Local Rural Development Plans (PDRL)				Project M&E System	Annual	Project M&E Unit	Droughts or climate change are managed with appropriate adaptation measures/ Agricultural products' prices remain favorable for family farmers.
	Households	0	13680	34200				
	1.1.4 Persons trained in production practices and/or technologies				Project M&E System	Annual	Project M&E Unit	
	Total number of persons trained by the project	0	13680	34200				
	Total number of attendances to training sessions	0	13680	34200				
	Men trained in crop	0	2736	6840				
	Women trained in crop	0	2736	6840				
	Young people trained in crop	0	821	2052				
	Men trained in livestock	0	4104	10260				
	Women trained in livestock	0	4104	10260				
	Young people trained in livestock	0	1231	3078				
	Total persons trained in crop	0	5472	13680				
	Total persons trained in livestock	0	8208	20520				
	1.1.8 Households provided with targeted support to improve their nutrition				Project M&E System	Annual	Project M&E Unit	
	Total persons participating	0	13680	34200				
	Males	0	6840	17100				
Females	0	6840	17100					
Households	0	13680	34200					
Household members benefitted	0	54720	136800					
Indigenous people	0	684	1710					

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Young	0	2052	5130				
	Cooperatives receiving support				Project M&E System	Annual	Project M&E Unit	
	Cooperatives	0	10	25				
	Households	0	700	1750				
	Families receive training to access public policies				Project M&E System	Annual	Project M&E Unit	
	Households	0	3600	9000				
Outcome C2. Rural families and communities improve agricultural production and their living conditions through increase access to sanitation through social technologies.	1.2.3 Households reporting reduced water shortage vis-à-vis production needs				Impact Survey	Baseline, Mid-term and End of Project	Independent consultancy firm	Droughts or climate change are managed with appropriate adaptation measures.
	Households	0	80	80				
	Households	0	2278	5696				
	Total number of household members	0	9114	22784				
Output C2. Rural community and family basic sanitation systems implemented, as well as other infrastructure for energy generation/consumption	Households with access to water for consumption and production and recycling actions				Project M&E System	Annual	Project M&E Unit	Droughts or climate change are managed with appropriate adaptation measures.
	Households with drinking water	0	16400	41000				
	Households with water for production	0	2848	7120				
	Households with recycling actions	0	300	750				
	3.1.3 Persons accessing technologies that sequester carbon or reduce greenhouse gas emissions				Project M&E System	Annual	Project M&E Unit	
	Males	0	1000	2500				
	Females	0	1000	2500				
	Young	0	300	750				
	Total persons accessing technologies	0	2000	5000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome C3. Enabling policy environment and developed capabilities to support the generation of sustainable, diverse and inclusive food systems.	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				Qualitative surveys administered to relevant stakeholders	Mid-Term, and End of Project	Independent consultancy firm	
	Number	0	4	8				
	SF.2.1 Households satisfied with project-supported services				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Household members	0	96000	240000				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)	0	75	75				
	Households (number)	0	24000	60000				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				Impact Survey	Baseline, Mid-Term, and End of Project	Independent consultancy firm	
	Household members	0	89600	224000				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)	0	70	70				
	Households (number)	0	22400	56000				
Output C3. KM products produced and disseminated. Capacity building for technical staff, family farmers and their organizations.	Government staff and ATER technicians receive training				Project M&E System	Annual	Project M&E Unit	Products made according to family farmers' needs
	Technicians	0	380	380				
	Environmental and climate education courses with a gender focus in rural schools				Project M&E System	Annual	Project M&E Unit	
	Courses	0	72	180				
	Pilot Projects developed and implemented				Project M&E System	Annual	Project M&E Unit	
	Pilot Projects	0	42	104				
	Policy 1 Policy-relevant knowledge products completed				Project M&E System	Annual	Project M&E Unit	
Number	0	8	20					

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 2: Theory of change

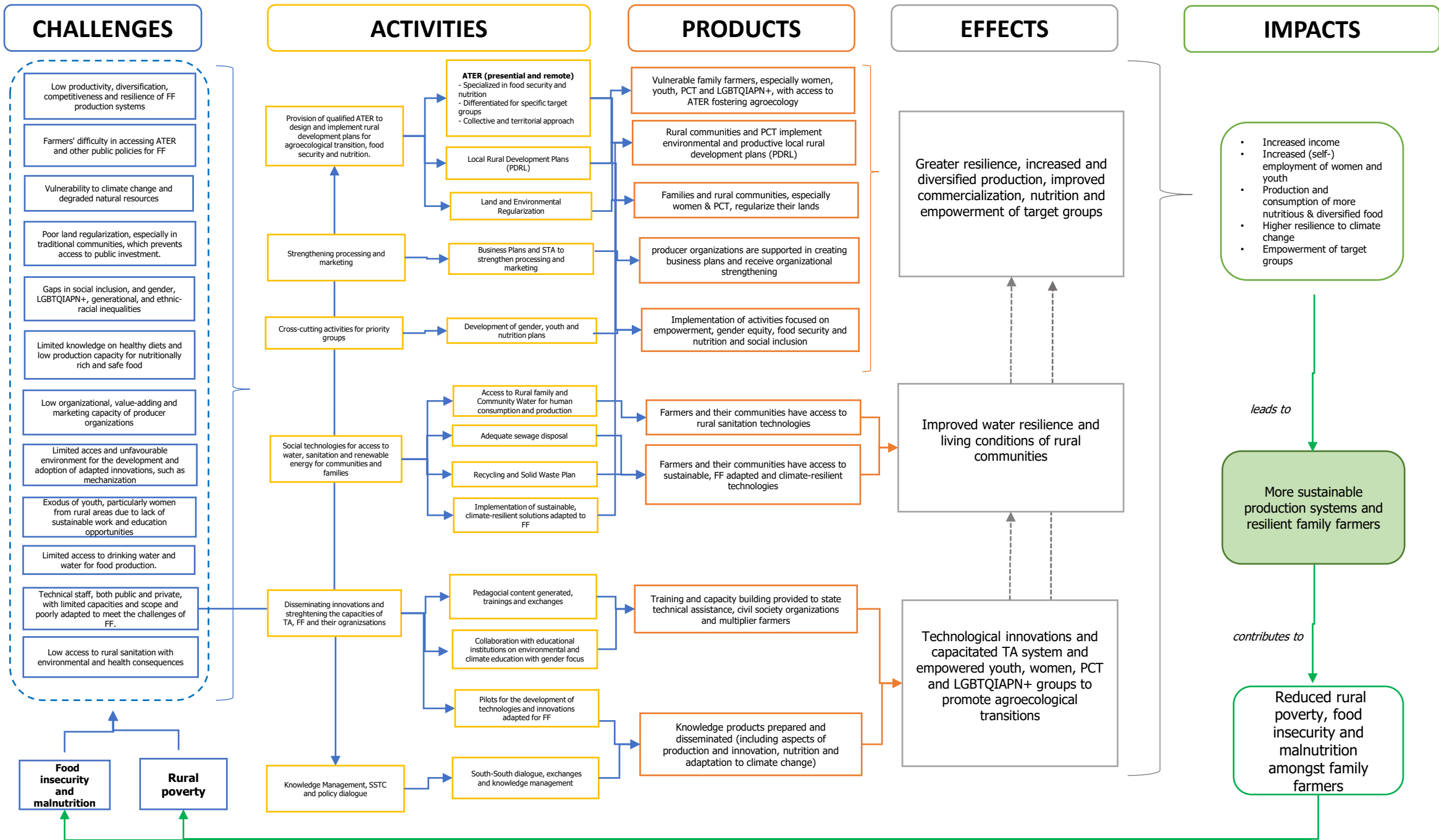
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Latin America and the Caribbean
Programme Management Department



Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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A. Annex 3: Project costs and financing

a. Project costs

1. The Project costs are divided into three (3) operational components and one (1) management component. The total cost of the Project is 139 million euros (including the beneficiaries' contribution). 61.2% is the cost of Component 1 "Rural development with environmental sustainability based on agroecology", 28.2% of Component 2 "Access to water, sanitation and social technologies", and 2.9% of Component 3 "Knowledge Management and South-South and Triangular Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid Region" (Table 1) and 7.8% of Component 4 "Project management, monitoring and evaluation (M&E), knowledge management and South-South and triangular cooperation (SSTC)".

Table 1: Project cost by component and funding source (€'000)

Projeto Paulo Freire II Components by Financiers (Euro '000)	Fida		Aecid		Aecid_Donation		Ceara State Government		Users		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
	1. Rural development with environmental sustainability based on agroecology	8,000	9.4	57,530	67.7	-	-	13,910	16.4	5,568	6.6	85,008
2. Access to water, sanitation and social technologies	-	-	28,450	72.7	-	-	6,264	16.0	4,432	11.3	39,146	28.2
3. Knowledge Management and South-South and Triangular	-	-	-	-	4,000	100.0	-	-	-	-	4,000	2.9
4. Project Management, M&E, KM and SSTC	-	-	6,020	55.5	-	-	4,826	44.5	-	-	10,846	7.8
Total PROJECT COSTS	8,000	5.8	92,000	66.2	4,000	2.9	25,000	18.0	10,000	7.2	139,000	100.0

2. The IFAD contribution will be used in full to finance 9.4% of Component I, the AECID Donation will be used in full to finance 100% of Component III, while the AECID loan and the funds provided by the Government will be used to finance both the activities of Component I and Component II, as well as the administrative and management costs of the project. The funds contributed by the users of the project will be used in their entirety as the counterpart of the direct investments in which they participate and which have been approved for Component I and II respectively

3. The Project classifies its implementation costs into six (6) investment categories and two categories of recurrent costs. The category "Grants and Subsidies" is the most relevant and represents 40.0 % of the total costs, the category "Goods, Services and Inputs" 30.0%, the category "Technical Assistance and Rural Extension (ATER)" 19.0 %, "Technical Assistance (TA)" 3%, "Civil Works" 3.0 % and finally "Training, Workshops and Meetings" 0.4% of the costs. The categories "Salaries and allowances" and "Operating costs" account for 3 % and 2 % respectively, as shown in Table 2. The total duration of the project is 72 months (6 years).

4. All IFAD contributions will be used to finance the provision of technical assistance and rural extension (ATER), in the same sense that 100% of the AECID Donation will be used to finance technical assistance (TA). The counterpart funds from the users will be allocated 55% to the category "grants and subsidies" and 45% to "goods, services and inputs". The AECID loan will be used to finance a large proportion of all categories of expenditure, with the exception of specialised TA, which will be financed exclusively from the grant. The Government will match AECID's financing of the same categories, except for operating costs, which will be the exclusive responsibility of the Spanish agency.

5. Table 2 shows in more detail the amounts and proportions of costs by funder and category of expenditure.

Table 2: Project costs by category of expenditure and source of funding (€'000)

	FIDA		AECID LOAN		AECID DONATION		CEARA STATE GVT		BENEFICIARIES		TOTAL	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs												
A. Technical Assistance and Rural Extension -ATER-	8,000	31%	5,130	20%	-	0%	12,870	50%	-	-	26,000	19%
B. Technical Assistance -AT-	-	-	-	-	4,000	100%	-	-	-	-	4,000	3%
C. Grats & Subsidies	-	-	49,172	88%	-	-	1,040	2%	5,568	10%	55,780	40%
D. Goods, Service and Input	-	-	30,720	74%	-	-	6,536	16%	4,432	11%	41,688	30%
E. Trainings, Workshops & Meeting	-	-	450	82%	-	-	100	18%	-	-	550	0%
F. Civil Works	-	-	3,151	83%	-	-	645	17%	-	-	3,796	3%
Total Investment Costs	8,000	6%	88,623	67%	4,000	3%	21,191	16%	10,000	8%	131,814	95%
II. Recurrent Costs												
A. Salaries & Allow ances	-	-	1,019	21%	-	-	3,809	79%	-	-	4,828	3%
B. Operating Costs	-	-	2,358	100%	-	-	-	-	-	-	2,358	2%
Total Recurrent Costs	-	0%	3,377	47%	-	0%	3,809	53%	-	0%	7,186	5%
Total PROJECT COSTS	8,000	6%	92,000	66%	4,000	3%	25,000	18%	10,000	7%	139,000	100%

6. Table 3 presents the planned investments by year and by component, showing the demand for the disbursement curve that the project will need to achieve its objectives, where it can be seen that year 4 will be the period with the largest investment in the project, with 45 million euros expected to be executed, representing 31% of the total project.

7. The disbursement curve shows a first year in which the lowest disbursements of the operation are planned, estimated at 5.7 million euro, but in which the most significant amounts of the operational component are implemented, almost tripling the budget for the following periods. This is due to the fact that a solid start of the project has been planned, with the selection and recruitment of suitable staff and the corresponding baseline and specific studies, as well as the acquisition of computer equipment, vehicles and office equipment for the proper functioning of the project. The second year of lower demand is the sixth (6) year of the project, during which it is planned to have carried out practically all the investments, pending the final activities of the project with the corresponding impact studies.

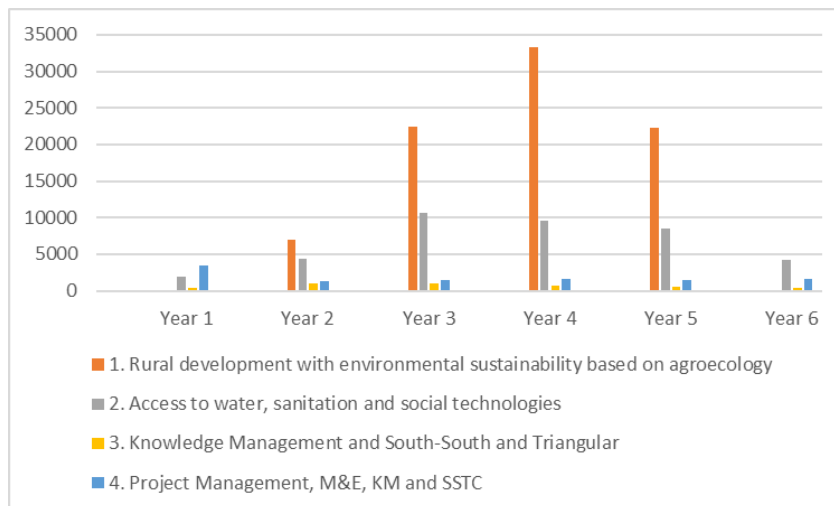
8. The third year of lower demand for funds has been estimated to be year 2 of the project, during which it is planned to start financing the productive and social investments in a phased manner. During this period, Component I will invest approximately EUR 7 million. Years three (3), four (4) and five (5) will be the years of highest budget execution, with year four (4) standing out as the year of maximum execution, where it is estimated that approximately EUR 33 million will be invested in Component I alone. For years three and five, the investment in the same component is estimated to be around 22.3 million euro each. The implementation curve is a bell-shaped curve, with a solid start and a good implementation rhythm planned, with the aim of addressing the urgencies of the target population as efficiently and effectively as possible. Table three (3) shows the amounts required from the donors by year and by component for the proper implementation of the project.

Table 3: Project cost per component per year (€'000)

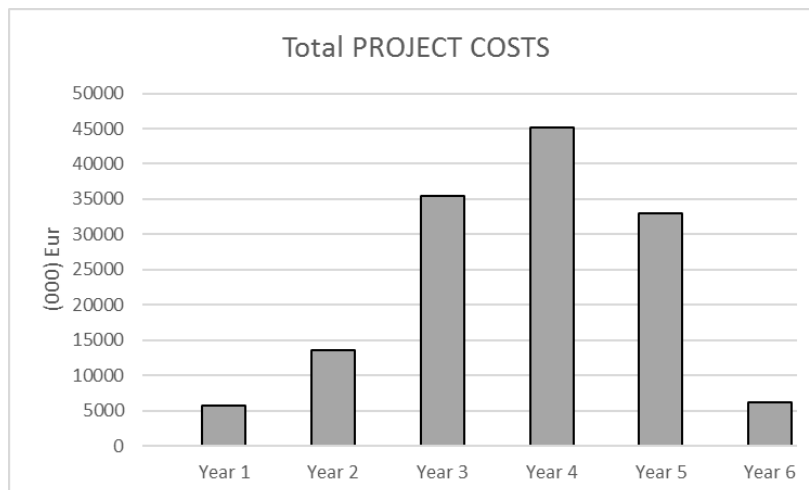
Project Components by Year -- Totals Including Contingencies Euro ('000)	Totals Including Contingencies (Euro '000)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
1. Rural development with environmental sustainability based on agroecology	15	6,963	22,365	33,315	22,320	30	85,008
2. Access to water, sanitation and social technologies	1,898	4,320	10,610	9,547	8,573	4,199	39,146
3. Knowledge Management and South-South and Triangular	410	999	938	683	590	380	4,000
4. Project Management, M&E, KM and SSTC	3,438	1,258	1,468	1,598	1,478	1,608	10,846
Total PROJECT COSTS	5,760	13,539	35,381	45,143	32,961	6,217	139,000

9. Figures one (1) and two (2) show the annual disbursement requirements for each component and for the total.

Graph 1: Project cost per component per year (€'000)



Graph 2: Total Project Cost per year (€'000)



a. Project financing and co-financing strategy

10. The Project will be financed by four (4) different sources: IFAD with a loan of 8 million euros; AECID with a loan of 92 million euros and a technical assistance grant of 4 million euros, for a total of 92 million euros; the Government of the State of Ceará with a counterpart contribution of 25 million euros; and the beneficiaries who will contribute an estimated 10 million euros, mainly in kind. The IFAD funding source represents 5.8% of the total value of the Project and will finance 9.4% of component I. The AECID grant will finance 100% of component III, financially to the value of 2.8 million euros and through the provision of direct services to the equivalent of 1.2 million euros. The AECID loan will finance 67.7% of Component I, 72.7% of

Component II and 55.5% of Component IV, making it the most relevant source for financing the Project, with 66.2% of the total. AECID funding (loan and donation) will finance 69.1% of the total project.

11. The Government of Ceará will contribute 16.4% of Component I, 16% of Component II and 44.5% of Component IV. Finally, the beneficiaries of the Project will contribute 6.6% of Component I and 11.3% of Component II in kind and with their own resources as a counterpart to the investments.

12. The contribution from the Government of Ceará will be partly financial and partly in the form of logistical costs, materials, the contribution of specialized professionals, the use of facilities, offices and technical services.

13. There is only one line of expenditure/investment that has international co-financing, which is the contracting of Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture, which is co-financed by IFAD (30%), AECID (20%) and the Government of Ceará for the remaining 50%. The proposed strategy is to make the contracting of these services independent of the funder. It is estimated that different contracts will be signed for the provision of these services, which have been 100% financed by one of the sources, depending on technical convenience and the availability of resources with the current contracting arrangements, so the co-financing of this line cannot generate any kind of inconvenience with regard to availability and/or *pari passu* compliance, thus avoiding dependence on budget availability depending on the origin of the funds.

Los costos del proyecto se encuentran distribuidos en tres (3) componentes operativos y un (1) componente de gestión ascendiendo a un total de € 139,000 millones (contabilizando el aporte de los usuarios). El 61,2 % se encuentra asignado al Componente 1 "Desenvolvimiento Rural com sustentabilidade ambiental de base agroecológica"; el 28,2 % al Componente 2 "Acesso à água saneamento e tecnologias sociais", el 2,9 % al Componente 3 "Gestão do Conhecimento e Cooperação para adaptação às mudanças climáticas e combate à desertificação no Semiárido" (Cuadro 1) y el 7,8 % corresponde al Componente 4 "Gestão do Projeto, Monitoramento e Avaliação (M&A), Gestão do Conhecimento e Cooperação Sul-Sul e Triangular (CSST)".

A. Detailed costs per component

The following tables detail the total costs, including unforeseen costs, for each of the components that make up the project, broken down by item of expenditure, year and funding institution.

**Table 4: Component I " Rural development with environmental sustainability based on agroecology"
(Euros -€-)**

Projeto Paulo Freire II																			
Table 1. Desenvolvimento rural com sustentabilidade ambiental de base agroecológica																			
Detailed Costs	Unit	Quantities						Total	Unit Cost (R\$)	Unit Cost (Euro)	Totals Including Contingencies (Euro '000)						Disb. Acct.	Fin. Rule	
		ano 1	ano 2	ano 3	ano 4	ano 5	ano 6				ano 1	ano 2	ano 3	ano 4	ano 5	ano 6			Total
I. Investment Costs																			
A. Fortalecimento da Agricultura Familiar e Superação da Fome e Mitigação dos efeitos da Pobreza e Assessoria Técnica (ATER)																			
1. Planos de Desenvolvimento Rural Local (PDRL)																			
PDRL produtivo familiar	Planos	-	30	100	150	100	-	380	718,200	135,000	-	4,050	13,500	20,250	13,500	-	51,300	GRANTS_&_SUBSIDIES	AECID (90%), USUARIOS (10%)
PDRL ambiental territorial	Planos	-	30	100	150	100	-	380	47,880	9,000	-	270	900	1,350	900	-	3,420	GRANTS_&_SUBSIDIES	AECID (94.79%), USUARIOS (5.21%)
Subtotal												-	4,320	14,400	21,600	14,400	-	54,720	
2. Assessoria Técnica (ATER) para Desenvolvimento de Agricultura Agroecologica e Sustentável /a	Familia	-	2,700	9,000	13,500	9,000	-	34,200	3,990	750	-	2,025	6,750	10,125	6,750	-	25,650	ATR	FIDA (31.89%), AECID (20%)
3. Capacitação de Agricultura para acesso às Políticas Públicas /b	Eventos	-	50	120	100	30	-	300	7,980	1,500	-	75	180	150	45	-	450	TWM	AECID (100%)
4. Regularização Fundiária e Ambiental																			
Regularização fundiária	Familia	50	50	500	1,000	300	100	2,000	1,276.8	240	12	12	120	240	72	24	480	GSI	AECID (100%)
Regularização ambiental (CAR)	Familia	50	50	500	1,000	300	100	2,000	319.2	60	3	3	30	60	18	6	120	GSI	AECID (100%)
Subtotal											15	15	150	300	90	30	600		
Subtotal											15	6,435	21,480	32,175	21,285	30	81,420		
B. Fortalecimento da Comercialização e do Beneficiamento de Productos da Agricultura Familiar																			
1. Planos de Negócio para fortalecimento do beneficiamento e da comercialização (médio/grande porte)	Plano	-	1	1	1	2	-	5	638,400	120,000	-	120	120	120	240	-	600	GRANTS_&_SUBSIDIES	USUARIOS (20%)
2. Consultoria Técnica Especializada (CTE) para o fortalecimento do beneficiamento e comercialização (medio	CTE PN	-	1	1	1	2	-	5	159,600	30,000	-	30	30	30	60	-	150	ATR	GOVT
3. Planos de Negócio para fortalecimento do beneficiamento e da comercialização (pequeno porte)	planos	-	5	5	5	5	-	20	186,200	35,000	-	175	175	175	175	-	700	GRANTS_&_SUBSIDIES	USUARIOS (20%)
4. Consultoria Técnica Especializada (CTE) para o fortalecimento do beneficiamento e comercialização peque	CTE PN	-	5	5	5	5	-	20	53,200	10,000	-	50	50	50	50	-	200	ATR	GOVT
Subtotal												-	375	375	375	525	-	1,650	
C. Genero, Juventude, Soberania alimentar e nutricional																			
1. Plano de Genero elaborado e implementado	Plano	-	30	100	150	100	-	380	13,300	2,500	-	75	250	375	250	-	950	GRANTS_&_SUBSIDIES	AECID (100%)
2. Plano de Juventude elaborado e implementado	Plano	-	30	100	150	100	-	380	6,916	1,300	-	39	130	195	130	-	494	GRANTS_&_SUBSIDIES	AECID (100%)
3. Plano de Nutrição elaborado e implementado	Plano	-	30	100	150	100	-	380	6,916	1,300	-	39	130	195	130	-	494	GRANTS_&_SUBSIDIES	AECID (100%)
Subtotal												-	153	510	765	510	-	1,938	
Total												15	6,963	22,365	33,315	22,320	30	85,008	

\a 2 anos de ATER para elaboração, implementação e finalização dos PDRLs
 \b 1 evento por comunidade sem PPF II
 \c 2 anos
 \d 1 ano

Annex 3: Project costs and financing of the Paulo Freire II Project. Federative Republic of Brazil

Table 5: Component II: " Access to water, sanitation and social technologies"
(Euros -€-)

Projeto Paulo Freire II		Quantities										Unit Cost		Unit Cost		Totals Including Contingencies (Euro '000)							
Table 2. Acesso à água, saneamento e tecnologias sociais												(R\$)	(Euro)							Disb. Acct.	Fin. Rule		
Detailed Costs		Unit	ano 1	ano 2	ano 3	ano 4	ano 5	ano 6	Total			ano 1	ano 2	ano 3	ano 4	ano 5	ano 6	Total					
I. Investment Costs																							
A. Acesso à água e Saneamento Básico Rural Comunitário																							
1. Acesso à água Rural Comunitário- Implantação /a	Familia	-	100	250	250	200	100	900	17,556	3,300	-	330	825	825	660	330	2,970	CIVIL_WORKS	AECID (100%)				
2. Acesso à água Rural Comunitário- Reabilitação, melhorias e ampliação	Familia	-	50	100	100	50	-	300	6,916	1,300	-	65	130	130	65	-	390	CIVIL_WORKS	AECID (100%)				
3. Reuso de água comunitário para produção /b	Familia	-	15	20	20	20	9	84	21,280	4,000	-	60	80	80	80	36	336	CIVIL_WORKS	AECID (100%)				
4. Ações de Reciclagem de Resíduos Sólidos	Ações	-	5	5	5	5	5	25	21,280	4,000	-	20	20	20	20	20	100	CIVIL_WORKS	AECID (100%)				
Subtotal												-	475	1,055	1,055	825	386	3,796					
B. Tecnologia Social de acesso à água e Apoio à Produção																							
1. Cisternas para consumo humano	Cisternas	500	1,500	2,000	700	300	-	5,000	6,490.4	1,220	610	1,830	2,440	854	366	-	6,100	GSI	AECID (80%), USUARIOS (20%)				
2. Cisternas para produção agropecuaria	Cisternas (PA)	250	250	1,000	1,000	1,000	500	4,000	27,398	5,150	1,288	1,288	5,150	5,150	5,150	2,575	20,600	GSI	AECID (80%), USUARIOS (20%)				
3. Reuso de água familiar para produção /c	Sistema	-	200	200	100	-	-	500	13,619.2	2,560	-	512	512	256	-	-	1,280	GSI	AECID (100%)				
4. Módulo sanitário domiciliar completo	Módulo	-	50	100	150	150	50	500	22,876	4,300	-	215	430	645	645	215	2,150	GSI	AECID (100%)				
5. Fogão ecoeficiente	Fogão	-	-	500	1,000	1,000	500	3,000	1,915.2	360	-	-	180	360	360	180	1,080	GSI	AECID (100%)				
6. Biodigestor	Biodigestor	-	-	100	150	150	100	500	19,577.6	3,680	-	-	368	552	552	368	1,840	GSI	AECID (100%)				
7. Barreiros trincheras e outros barramentos /d	Barragem	-	-	25	25	25	25	100	15,960	3,000	-	-	75	75	75	75	300	GSI	AECID (100%)				
8. Inovação (maquinários, ferramentas e etc.) /e	Unidades	-	-	200	300	300	200	1,000	10,640	2,000	-	-	400	600	600	400	2,000	GSI	AECID (100%)				
Total												1,898	4,320	10,610	9,547	8,573	4,199	39,146					

^a Implementação de sistemas de água comunitário
^b Implementação de sistemas de reuso de água cinza comunitário para fins de produção agrícola
^c Construção de sistema de reuso de água cinza familiar para fins produtivos
^d Construção de barreiros trincheira e/ou pequenos açudes em propriedades rurais
^e Unidades de equipamentos ou sistemas de inovação

Annex 3: Project costs and financing of the Paulo Freire II Project. Federative Republic of Brazil

Table 6: Component III: " Knowledge Management and South-South and Triangular" (Euros -€-)

Projeto Paulo Freire II																			
Desenvolvimento e Cooperação para a adaptação às mudanças climáticas e combate à desertificação																			
Detailed Costs	Unit	Quantities						Total	Unit Cost (R\$)	Unit Cost (Euro)	Totals Including Contingencies (Euro '000)						Expenditure		
		ano 1	ano 2	ano 3	ano 4	ano 5	ano 6				2000	2001	2002	2003	2004	2005	Total	Account	Fin. Rule
I. Investment Costs																			
A. Desenvolvimento de capacidades dos agricultores familiares e das equipes de extensão rural (Assistência Técnica, AT)																			
1. Assistência técnica (AT) /a	cursos	20	50	30	-	-	-	100	15,960	3,000	60	150	90	-	-	-	300	AT_1	AECID_DOA (100%)
2. Cursos de capacitação /b	cursos	5	10	5	-	-	-	20	159,600	30,000	150	300	150	-	-	-	600	AT_1	AECID_DOA (100%)
3. Atividades de intercâmbio de experiências entre agricultores do i intercambios		-	5	5	5	5	5	25	53,200	10,000	-	50	50	50	50	50	250	AT_1	AECID_DOA (100%)
Subtotal											210	500	290	50	50	50	1,150		
B. Promoção da educação ambiental e climática com enfoque de genero em escolas rurais																			
1. Curso de gestão sustentável de recursos naturais /c	cursos	-	10	20	20	10	-	60	10,640	2,000	-	20	40	40	20	-	120	AT_1	AECID_DOA (100%)
2. Curso de produção de mudas e reflorestamentos /d	cursos	-	10	20	20	10	-	60	10,640	2,000	-	20	40	40	20	-	120	AT_1	AECID_DOA (100%)
3. Curso de segurança alimentar e nutricional /e	cursos	-	10	20	20	10	-	60	10,640	2,000	-	20	40	40	20	-	120	AT_1	AECID_DOA (100%)
Subtotal											-	60	120	120	60	-	360		
C. Promoção da pesquisa tecnológica e implementação de projetos pilotos																			
1. Desenvolvimento de fornos e fogões ecoeficientes	piloto	-	5	10	5	-	-	20	10,640	2,000	-	10	20	10	-	-	40	AT_1	AECID_DOA (100%)
2. Equipamento de tratamento de água de caminhões-tanque para c	piloto	-	10	15	15	10	10	60	5,320	1,000	-	10	15	15	10	10	60	AT_1	AECID_DOA (100%)
3. Utilização de alternativas ao uso de lenha em pequenas unidades	piloto	-	2	4	4	2	-	12	26,600	5,000	-	10	20	20	10	-	60	AT_1	AECID_DOA (100%)
4. Soluções de reciclagem de resíduos sólidos para artesanatos /g	piloto	-	1	2	2	-	-	5	10,640	2,000	-	2	4	4	-	-	10	AT_1	AECID_DOA (100%)
5. Ferramentas para inclusão digital rural /h	piloto	-	1	2	2	-	-	5	10,640	2,000	-	2	4	4	-	-	10	AT_1	AECID_DOA (100%)
6. Experimentos e soluções em agricultura bioessalina /i	piloto	-	1	1	-	-	-	2	26,600	5,000	-	5	5	-	-	-	10	AT_1	AECID_DOA (100%)
Subtotal											-	39	68	53	20	10	190		
D. Gestão do Conhecimento e cooperação Sul-Sul e Triangular (CSST)																			
1. Elaboração de estudos de Gestão de Conhecimento sobre agricu	Estudos	-	2	5	5	5	3	20	106,400	20,000	-	40	100	100	100	60	400	AT_1	AECID_DOA (100%)
2. Workshops, oficinas, rotas de conhecimento e/ou seminários de w orkshops		-	2	2	2	2	2	10	159,600	30,000	-	60	60	60	60	60	300	AT_1	AECID_DOA (100%)
3. Cooperação Triangular e Sul-Sul /k	projetos	-	2	2	2	2	-	8	266,000	50,000	-	100	100	100	100	-	400	AT_1	AECID_DOA (100%)
Subtotal											-	200	260	260	260	120	1,100		
E. Fortalecimento da UGP para implementação e monitoramento das atividades																			
1. Assessoria á Unidade de Gestão de Projetos (UGP) na concepç	Estudos	1	1	1	1	1	1	6	1,064,000	200,000	200	200	200	200	200	200	1,200	AT_1	AECID_DOA (100%)
Total											410	999	938	683	590	380	4,000		

\a Cursos para agricultores

\b Fortalecimento técnico da equipe de ATER e da CTE

\c Custos de pagamento ao professor, alojamento, alimentação do professor e dos alunos 2 dias, material didático, etc

\d Custos de pagamento ao professor, alojamento, alimentação do professor e dos alunos 2 dias, material didático, etc

\e Custos de pagamento ao professor, alojamento, alimentação do professor e dos alunos 2 dias, material didático, etc

\f estudo e aplicação de novo tipo

\g estudo e aplicação de novo tipo

\h estudo e aplicação de novo tipo

\i estudo e aplicação de novo tipo

\j Análise documental, colecta de dados em escritório e em campo, produção de materiais escritos e audiovisuais, impressão, etc., incluindo tradução para inglês, espanhol e francês.

\k Missões de cooperação técnica em países terceiros

\l Esta actividade é contratada diretamente pela Aecid e presta Assistência Técnica directa espanhola ao UGP

Annex 3: Project costs and financing of the Paulo Freire II Project. Federative Republic of Brazil

Table 7: Component IV: " Project Management, M&E, KM and SSTC" (Euros -€-)

Projeto Paulo Freire II e Avaliação (M&A), Gestão do Conhecimento e Cooperação Sul-Sul e Triangular																	
Detailed Costs	Unit	Quantities						Totals Including Contingencies (Euro '000)						Disb. Acct.	Fin. Rule		
		ano 1	ano 2	ano 3	ano 4	ano 5	ano 6	Total	ano 1	ano 2	ano 3	ano 4	ano 5			ano 6	Total
I. Investment Costs																	
A. Unidade Gestora do Projeto (UGP)																	
Adquisição de equipamentos	lumpsum	1	-	-	-	-	-	1	250	-	-	-	-	-	250	GSI	GOVT
Adquisição de equipamentos	lumpsum	1	-	-	-	-	-	1	100	-	-	-	-	-	100	GSI	GOVT
Reforma da UGP	lumpsum	1	-	-	-	-	-	1	800	-	-	-	-	-	800	GSI	AECID (100%)
Reforma dos escritórios de	Unidade	5	-	-	-	-	-	5	200	-	-	-	-	-	200	GSI	AECID (100%)
Sistema IDACE	Unidade	1	-	-	-	-	-	1	50	-	-	-	-	-	50	GSI	AECID (100%)
Veículos /a	veiculo	2	-	-	-	-	-	2	240	-	-	-	-	-	240	GSI	GOVT
Cursos para aprimorar/atu:	courses	3	3	2	-	-	-	10	30	30	20	20	-	-	100	TWM	GOVT
Outros custos operacionais	lumpsum	1	1	1	1	1	1	6	363	363	363	363	363	363	2,178	GSI	AECID (100%)
Subtotal									2,033	393	383	383	363	363	3,918		
B. Monitoramento e Avaliação (M&A), Gestão do Conhecimento e CSST																	
Sistema de Gestão (PDRL)	estudio	1	-	-	-	-	-	1	200	-	-	-	-	-	200	GSI	AECID (100%)
Estudo de Avaliação de Impacto	estudio	1	-	-	1	-	1	3	200	-	-	200	-	200	600	GSI	AECID (100%)
Estudos avaliativos de resiliência	estudio	-	-	-	1	1	3	5	-	-	-	30	30	90	150	GSI	AECID (100%)
Estudo de identificação e planejamento	estudio	1	-	-	-	-	-	1	150	-	-	-	-	-	150	GSI	AECID (100%)
Consentimento Livre, Prévio e Específico	estudio	1	-	-	-	-	-	1	20	-	-	-	-	-	20	GSI	AECID (37%)
Produtos de Gestão do Conhecimento	estudio	-	3	5	5	5	2	20	-	30	50	50	50	20	200	GSI	AECID (100%)
Intercâmbios (Cooperação Sul-Sul e Triangular)	intercambios	-	-	2	1	2	1	6	-	-	200	100	200	100	600	GSI	AECID (100%)
Subtotal									570	30	250	380	280	410	1,920		
Total Investment Costs									2,603	423	633	763	643	773	5,838		
II. Recurrent Costs																	
A. Custos Operacionais																	
Diárias Equipe	euro/diária	12	12	12	12	12	12	72	30	30	30	30	30	30	180	OPERATING_COST	AECID (100%)
Passagens-Equipe	passagens	12	12	12	12	12	12	72	12	12	12	12	12	12	72	SAL_CO_FIN	AECID (100%)
Locação de veículos utilitários	mes	10	10	10	10	10	10	60	150	150	150	150	150	150	900	SAL_CO_FIN	AECID (100%)
Custo da Gerenciadora da UGP	euros/ano	1	1	1	1	1	1	6	43	43	43	43	43	43	256	SAL_CO_FIN	AECID (100%)
Subtotal									235	235	235	235	235	235	1,408		

Annex 3: Project costs and financing of the Paulo Freire II Project. Federative Republic of Brazil

Projeto Paulo Freire II e Avaliação (M&A), Gestão do Conhecimento e Cooperação Sul-Sul e Triangular																	
Detailed Costs		Quantities							Totals Including Contingencies (Euro '000)								
Unit		ano 1	ano 2	ano 3	ano 4	ano 5	ano 6	Total	ano 1	ano 2	ano 3	ano 4	ano 5	ano 6	Total	Disb. Acct.	Fin. Rule
B. Salários																	
Coordenadoria do projeto	Remuneração anual	1	1	1	1	1	1	6	30	30	30	30	30	30	180	SAL_CO_FIN	GOVT
Coordenadoria técnica do p	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia no Componente 1	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia no Componente 2	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia no Componente 3	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia financeira	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia de aquisições	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Gerencia de M&A	Remuneração anual	1	1	1	1	1	1	6	24	24	24	24	24	24	144	SAL_CO_FIN	GOVT
Especialista no component	Remuneração anual	1	1	1	1	1	1	6	19	19	19	19	19	19	115	SAL_CO_FIN	GOVT
Especialista no component	Remuneração anual	1	1	1	1	1	1	6	19	19	19	19	19	19	115	SAL_CO_FIN	GOVT
Especialista no component	Remuneração anual	1	1	1	1	1	1	6	19	19	19	19	19	19	115	SAL_CO_FIN	GOVT
Especialista financeiro pler	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em aquisições	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em genero	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em juventude	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em nutrição	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em gestão do	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em Salvaguar	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em M&A	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Especialista em Gestão adi	Remuneração anual	1	1	1	1	1	1	6	18	18	18	18	18	18	108	SAL_CO_FIN	GOVT
Técnicos de campo I (escr	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo II (escr	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo III (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo IV (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo V (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo VI (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo VII (es	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo VIII (es	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo IX (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo X (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo XI (esc	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Técnicos de campo XII (esi	Remuneração anual	1	1	1	1	1	1	6	10	10	10	10	10	10	58	SAL_CO_FIN	GOVT
Apois administrativos e fin:	Remuneração anual	1	1	1	1	1	1	6	67	67	67	67	67	67	403	SAL_CO_FIN	GOVT
Subtotal									600	600	600	600	600	600	3,600		
Total Recurrent Costs									835	835	835	835	835	835	5,008		
Total									3,438	1,258	1,468	1,598	1,478	1,608	10,846		

\a Caminhonete 4x4

\b 1) avaliação da ater, 2) Genero, 3) Juventude, 4) PCT, 5) Segurança alimentar

\c locazaõ mensal de 15 veiculos

\d 8% del total do salários

\e 8 funcionarios

Annex 3: Project costs and financing of the Paulo Freire II Project. Federative Republic of Brazil

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Annex 4: Economic and financial analysis

A. Introduction

1. This document presents: a) the economic benefits of the proposed development of the Paulo Freire Project II (PPF II); b) the modelling for the feasibility analysis; and c) the assessment of the economic and financial viability of the project under analysis.

A. Identifying the benefits of the project

2. The Project will implement different types of strategic activities that contribute to poverty reduction and equal opportunities for families of small rural producers living in poverty. In this sense, work will be carried out at different levels to improve the market integration of the products of their organizations and to support entrepreneurs who will use the Project to increase their income as a means of improving the quality of life of their families, using new technologies to consolidate improvements in the competitiveness of their businesses and expanding opportunities for genuine local employment:

- (a) One level will be that of small producer organizations, from which it is proposed to finance their Local Rural Development Plans (PDRL), Land and Environmental Regularization Plans (CAR), Specialized Technical Assistance (STA) to strengthen processing and marketing, Gender, Youth and Nutrition Plans, with the aim of increasing the volume and improving the quality of the products offered by family farmers, adding value to them and promoting better integration into more sophisticated markets. The PDRLs will pursue the idea of expanding the scale of production, improving productivity, reducing waste, improving quality and accompanying new business ideas that facilitate access to and consolidation in more sophisticated markets. All these plans will adopt an environmentally friendly approach and make specific investments in this direction. Beneficiaries will benefit from co-financing through direct transfers to make investments in infrastructure and equipment, and will receive specific and high-quality technical assistance, enabling them to update their technological packages to improve productivity, added value, volume and quality of their production, as well as obtaining agroecological certifications that will facilitate access to better markets.
- (b) A second level, focused on territorial competitiveness, for which infrastructure works are proposed for access to water and basic sanitation, implementation of community water systems, systems for reusing wastewater for agricultural production, construction of dams and/or installation of cisterns for human consumption and agricultural production, installation of sanitation modules to improve domestic wastewater management, installation of eco-efficient stoves and biodigesters that improve the relationship between the community and care for the environment. This will improve the quality of life in these areas. Improving access to water resources has a direct impact on family health and agricultural production systems.

In the same way, it is proposed to work on reducing the impact of climatic disasters, preventing fires and improving territorial sustainability. Improving the management of water resources is fundamental to planning a more sustainable and healthier territory for its inhabitants.

- (c) The third level is based on strengthening human capital through training for family farmers, facilitating exchanges and specialized technical assistance to improve access to various existing services, such as financial services, climate information services, remote technical assistance, commercial information, using new information and communication technologies, thus reducing gaps in access to information.

3. These activities must be targeted towards developing and strengthening the talents and skills of the producers and young people involved. . This approach will lead to a significant increase in income by improving quality and increasing the volume of production, its added value and the diversification of the products, which will facilitate more effective access to better markets.

4. To identify the benefits of the Project, an analysis of primary information was carried out using information gathered during the design mission in December 2023 and January 2024. Secondary information provided by the Government of Ceará and its validation with basic parameters at the producer level in the municipalities visited by the mission were also used.

B. Modelling for financial and economic analysis

5. The economic and financial analysis followed the guidelines of the IFAD Economic and Financial Analysis Guide. Four (4) sources of benefits have been identified:

(a) Increased productivity: Optimizing the volume and efficiency of production as part of a comprehensive and sustainable approach aims to increase the profitability, product quality and competitiveness of family farming. To this end, innovative technologies will be implemented, strategic investments will be made to reduce losses in processes and through specialized technical assistance, and the responsible use of natural resources will be promoted. All this with the aim of maximizing productivity while minimizing environmental impact, ensuring long-term sustainability and improving the quality of life of beneficiary families.

(b) Resilience of the production system: The Local Rural Development Plans (PDLRs) are committed to resilient investments that promote environmental sustainability and the resilience of rural communities. Priority is given to the recovery and protection of fertile soils, the implementation of afforestation and reforestation programs, the optimization of water management and the efficient treatment of waste water. These measures, which focus on maintaining and enhancing productivity, reducing climate risks and reducing environmental impacts, create an environment conducive to sustainable rural development. The key objective is to protect and maintain productivity, mitigate the effects of climate change and conserve natural resources. This commitment to resilience will have a positive impact on the community involved and the wider environment, shaping a prosperous and sustainable rural future.

(c) Adding value: This is linked to the application of local rural development plans (PDLRs) to the local productive fabric through the adoption of more efficient production systems. The aim is to integrate advanced technologies and apply technical improvements through partnerships between family farmers. It also aims to optimize the use of production factors and reduce losses in each production cycle. It is essential to consider the potential for innovation to access more promising

markets, where the participation of young people in projects can accelerate these processes.

(d) Access to new and better markets: Technical assistance, investment and certification must be instruments that increase not only the quantity but also the quality of the products of Project beneficiaries, with a positive impact on their access to more profitable markets. It is essential to promote the adoption of advanced technologies, support young enterprises to facilitate new business links and improve the quality of products to meet the demands of more demanding consumers. It is also necessary to provide personalized assistance to local leaders on agri-food marketing strategies. By implementing activities that include market intelligence, the aim is to simplify and democratize access to new and better markets for the Project's target population.

6. To design the analyzed models by category, examples have been taken that respond to the different characteristics of the potential target groups of the Project, considering the productive diversity of the territory where the Project will be implemented. In this way, 6 models were designed based on: i) activities that produce healthy and desirable food for the territory and the target population, ii) that have the potential to improve quality, technological adoption and transformation to generate local added value and thus increase territorial wealth, and iii) that the products generated have a growing demand.

7. Projections have been made of the improvements in management and production estimates in the "with" and "without" scenarios, considering the reduction in losses due to the technological improvements applied and the added value generated by the investments proposed in the PDRLs.

8. The proposed models have been evaluated and analyzed in line with the strategy of the Government of Ceará to improve the food supply, productivity, quality, nutritional health and access to new markets, generating increases in income for family farmers and sustainable improvements in the quality of life of Project beneficiaries:

Model I, "Agroecological Cotton": This model proposes to organize the agroecological transition of a consortium of 90 producers, each with 1.5 hectares of conventional maize. The proposal is to start a consortium production of agroecological cotton with maize, beans and sesame and to join forces for joint marketing. It is proposed to build a packaging warehouse, rainwater collection and storage systems and an irrigation system. With specialized technical assistance, the aim is to produce high quality, certified organic products. Investments will also be made to improve the climate resilience of the plots. The Project will support the modernization of a small packaging and storage unit that will accompany the commercial development of certified cotton. The plan includes strategic investments estimated at R\$ 766,144, which will significantly improve the technological package, reduce waste and maintain product quality through proper storage of production. The rainwater harvesting and storage system will reduce risks to the farms during months of water stress. This will stabilize the volume and quality of production. It is estimated that the income of member families will increase from R\$2,830 to R\$9,223 per year.

Model II, "Sheep with irrigated fodder": Model II, "Sheep with irrigated feed": The sheep production model aims to improve the efficiency of sheep producers through the production of suitable fodder under irrigation, the construction of pens to improve health and reproduction management, and the provision of specialized technical assistance for their correct use. It is hoped to consolidate organized groups of 90 producers with a homogeneous, high-quality supply of sheep

for local markets and major towns in the surrounding area. The plan includes strategic investments totaling an estimated R\$ 766,134, which will be used for the installation of wells (drilling and pumping), the construction of fencing for the feeding area of each production unit, the construction of sheep pens for the 90 families, the construction of an irrigation system, and the purchase of a motorized fodder plant to improve animal nutrition. At the same time, investments will be made to reduce environmental impact by an estimated R\$9,000. It is estimated that the income of the families associated with this model will increase from R\$1,126 to R\$4,561 per year.

Model III: Agroforestry System: This model proposes to convert land used as natural pasture into agroforestry plantations for animal feed. In the situation without the project, 30 kg of goats are produced and reared with a mortality rate of 10%. The technical assistance and investments proposed by the model are expected to increase the weight of each animal sold to 37.5 kg and reduce the mortality rate to 5% of the total herd. It is also hoped to increase the selling price by improving the bargaining power of a group of producers. It is estimated that an organization of 3 producer groups will be formed, each consisting of 30 producers. It is estimated that each producer will have a herd of 80 animals, which will be sold to middlemen or at local cattle fairs. The plan includes investments totaling R\$ 766,188, which will be used to fence off the area for each producer (fabric and poles), prepare the soil, buy palm and sisal seedlings, seeds of manisoba, beans, andú, grass, sorghum, maize, millet, etc., as well as individual and community tools and fodder for the years of the water crisis. This whole model has a positive impact on environmental recovery. It is estimated that the income of families associated with this model will increase from R\$212 to R\$10,115 per year.

Model IV: Agroecological vegetables under irrigation: This model represents the production of irrigated vegetables (lettuce, onions, cabbage, kale, beetroot) produced by 3 groups that come together for joint marketing. Each group will be made up of 30 people who will cultivate a common area divided into individual farms. They will share the administration, the well and some tools. But each family will have its own irrigation system and will be responsible for its own production. It is estimated that they will have an area of around 500m²/beneficiary. The plan includes investments totaling R\$ 766,274 to be invested in the drilling and construction of wells, water tanks, water pipes, irrigation kits, solar panels (complete kit with pump), organic fertilizer (Sterco), the purchase of seeds and scales. Investments will also be made to reduce the impact on the environment, which could include the planting of indigenous forest species and/or measures for the rational use of resources, such as the use of water or alternative energy. It is estimated that the income of the families associated with this model will increase from R\$1,300 to R\$4,467 after the investments have been made.

Model V: Beekeeping: The proposed beekeeping model consists of building or expanding a space for collecting and fractionating honey and its derivatives. The plan is to motivate 90 families from nearby communities to take part in the Project. With investment and specialized technical assistance, it is hoped to produce up to 40 kg of honey per hive after five years. Each family will receive training, infrastructure, and equipment to keep 15 hives in production. Honey harvesting and extraction activities will be carried out collectively by the families. The aim is to commercialize the honey, beeswax and propolis with agroecological certification. The total investment will be R\$767,473.00, which will be used to build the space, buy hives, equipment and environmental improvements. It is estimated

that the income of the families associated with this model will increase significantly, from R\$780 to R\$11,409 per year.

Model VI: Free-range chicken for meat and eggs; The model aims to help a group of rudimentary free-range chicken producers to achieve a 90-day rearing cycle. It is estimated that each producer will be able to run 3-4 cycles per year. With technical assistance and funding, it is expected that the chickens will be fed 50% commercial feed and 50% home grown produce, crops and household waste. It is estimated that mortality will be reduced by up to 4% per year. The plan is to create groups of around 90 families, who will be given nine feed motorbikes to produce feed for communal use. The plan includes investments totaling R\$765,863, which will be used to invest in aviaries, drinking fountains, feeders, an automatic 40-egg incubator, a 20kg scale, a 5hp single-phase feed motor, a flamethrower, a gas cylinder and a production yard. Investments will also be made to reduce the impact on the environment, including the planting of indigenous species with economic potential and the recycling of waste and/or use of alternative energy to power the production structure. It is estimated that the income of the families associated with this model will increase from R\$139 to R\$43,429 per year per family once the investments have been made.

9. For more information on the models, their cash flows, estimates and indicators, see the file EFA_PPFII_Exante_02_2024.xls which is annex 4.2 to this appendix.

10. Socio-economic indicators include: (i) physical production; (ii) employment or labor required; (iii) cash flow; (iv) profit; (v) net household income (profit + value of household labor), (vi) internal rate of return (IRRf); and (vii) present value of benefits (NPVf).

11. The performance indicators of the models are summarized in Table 1, where the net benefit of all the models increases with the implementation of the Project and reaches values ranging from an increase of R\$ 285,500/year (model 4) to R\$ 3,896,126/year (model 6).

12. The most relevant socio-economic indicator for assessing the Project's results is net family income, which increases significantly in all models. In all six (6) simulated models, it is evident that potential investments will lead to increased employment of family labor, thereby reducing reliance on off-farm wage labor and fostering a renewed appreciation for familial work within a healthier and more harmonious environment.

13. The IRRf varies from 24.3% to 86%. The NPVf with a discount rate of 10% is positive in all cases, ranging from R\$670,038 in model 4 (Agroecological vegetables under irrigation) to R\$7,791,017 in model 6 (Model VI: Free-range chicken for meat and eggs).

Table 1. Socio-economic indicators of the models

	Models	Net profit in reais				Family net income in Reais				Jobs (salary)			IRRf	VPLf \$R
		WOP	WP	Diff	%	WOP	WP	Diff	%	WOP	WP	Diff	%	%
M1	Model I: Agroecological Cotton	254,700	830,048	575,348	226%	2,830	9,223	6,393	226%	490	810	320	32.9%	\$ 1,380,726
M2	Model II: Sheep on irrigated forage	101,375	410,468	309,093	305%	1,126	4,561	3,434	305%	68	86	18	25.2%	\$ 604,479
M3	Model III: Agroforestry System	19,056	910,342	891,286	4677%	212	10,115	9,903	4677%	3,000	4,050	1,050	24.3%	\$ 1,297,687
M4	Model IV: Agroecological vegetables under irrigation	117,000	402,005	285,005	244%	1,300	4,467	3,167	244%	1,800	2,066	266	29.8%	\$ 670,038
M5	Model V: Beekeeping	70,200	1,026,845	956,645	1363%	780	11,409	10,629	1363%	1,080	1,080	0	76%	\$ 3,438,585
M6	Model VI: Free-range chicken for meat and eggs	12,477	3,908,603	3,896,126	31227%	139	43,429	43,290	31227%	350	575	225	86%	\$ 7,791,017

14. The socio-economic indicators in Table 1 are the result of investments, financing, training and technical assistance. Annex 4.2 of this appendix presents the financial cash flows of the models with physical needs, investments, labour demand, increase in household income and performance indicators for the Project's six (6) models.

15. The Project provides direct assistance through the implementation of 380 Plans to 34,200 poor rural families, of which 50% will be women and 15% young people and 5% PCT. The incorporation of these families into the Project through production models is shown in Tables 2 and 3. It should also be noted that, through the Project's activities, the total number of families assisted will amount to 84,045.

Table 2: Families that joined the Project

Incorporation of Beneficiaries										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Totals Models	Total Beneficiaries	%	Technology adoption rate
Model 1	0	0	4	8	7	0	19	1710	5%	80%
Model 2	0	10	22	30	14	0	76	6840	20%	80%
Model 3	0	1	4	8	44	0	57	5130	15%	80%
Model 4	0	1	5	7	25	0	38	3420	10%	80%
Model 5	0	12	35	67	0	0	114	10260	30%	80%
Model 6	0	6	30	30	10	0	76	6840	20%	80%
Total	0	30	100	150	100	0	380	34200	100%	

Table 3: Families joining the Project by year and model with adjustment for the rate of technology transfer

Modelos	Unidade	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	Adjusted
Model I: Agroecological Cotton	No. Plans	0	0	4	8	7	0	19	15
	No. Families	0	0	360	720	630	0	1710	1368
Model II: Sheep on irrigated forage	No. Plans	0	10	22	30	14	0	76	61
	No. Families	0	900	1980	2700	1260	0	6840	5472
Model III: Agroforestry System	No. Plans	0	1	4	8	44	0	57	46
	No. Families	0	90	360	720	3960	0	5130	4104
Model IV: Agroecological vegetables under irrigation	No. Plans	0	1	5	7	25	0	38	30
	No. Families	0	90	450	630	2250	0	3420	2736
Model V: Beekeeping	No. Plans	0	12	35	67	0	0	114	91
	No. Families	0	1080	3150	6030	0	0	10260	8208
Model VI: Free-range chicken for meat and eggs	No. Plans	0	6	30	30	10	0	76	61
	No. Families	0	540	2700	2700	900	0	6840	5472
Total	No. Plans	0	30	100	150	100	0	380	304
	No. Families	0	2700	9000	13500	9000	0	34200	27360

C. Financial and economic viability of production systems

Assumptions

16. The period for calculating the analysis of the models has a horizon of 10 years, considering that the interventions will focus on supporting new technologies that have a short life cycle and that the technical assistance activities for integration are estimated to have similar life cycles. The assumptions made for the models are as follows.

- (a) It was considered that the rate of adoption of the families to the PDRLs will be approximately 80 per cent of the target population, therefore, to carry out the analysis, the incremental benefits of 80 per cent of the 34,200 families are considered. The value of the transfers made to

producers who do not adopt the Project was incorporated into the administrative cost of the Project.

- (b) The Project considers the following hypothetical effects on production systems:
- (i) The increase in income of agro-industrial systems stems from the effects of increased production due to the application of technological improvements and specialized technical assistance, improved post-harvest processing and processes for adding value to production, as well as access to markets and the shortening of the value chain, measured primarily as incremental income.
 - (ii) It considers the incorporation of technologies in the processing, storage of products and/or application of intelligent and environmentally sustainable production techniques.
 - (iii) The associations taking part in the Project will improve their production systems and their processing and certification processes, which will be reflected in the effect of increases in unit sales prices that imply an addition of value to the products.

Financial analysis

17. The financial viability of the project over a 10-year horizon, proposes producer models, considering: the increase in net household income, the internal rate of return (IRRf), the present value of incremental net benefits (NPVf) and the benefit/cost ratio in relation to the situation without the Project, calculated at market prices.

18. The bank rate adopted is 10% per year, equivalent to the estimated opportunity cost of capital in the domestic market. The currency used was the Brazilian real and the exchange rate was R\$ 5.3= 1.00 Euro (€).

19. Table 4 shows the models analyzed for the financial analysis of the Paulo Freire II Project. The IRRf are higher than the current average bank rate, ranging from 24.3% to 85.8%, and the NPVf are all positive and range from €114,053 to €1,470,003, demonstrating the financial viability of the Project.

Table 4: Financial Analysis of the Models

Federative Republic of Brazil: PPF II- State of Ceará-2024							
A)		Models					
A n á l i s e F i n a n c i e i r a	Incremental benefits in models (\$R)						
		Model I: Agroecological Cotton	Model II: Sheep on irrigated forage	Model III: Agroforestry System	Model IV: Agroecological vegetables under irrigation	Model V: Beekeeping	Model VI: Free-range chicken for meat and eggs
	Year 1	-1,007,017	-874,019	-1,379,850	-701,772	-972,937	-782,677
	Year 2	-151,908	136,743	-152,094	131,836	606,590	172,514
	Year 3	523,565	324,768	328,815	208,421	799,404	772,146
	Year 4	554,548	213,872	445,814	285,005	855,395	987,803
	Year 5	554,548	295,659	530,538	285,005	886,445	1,310,038
	Year 6	554,548	318,868	530,537	285,005	886,445	1,540,605
	Year 7	554,548	230,439	530,536	285,005	886,445	2,379,128
	Year 8	554,548	324,738	935,534	285,005	886,445	2,818,154
	Year 9	554,548	347,182	935,533	285,005	886,445	3,298,356
Year 10	554,548	299,301	1,016,531	285,005	886,445	3,858,751	
VPL (\$R)	1,380,726	604,479	1,297,687	670,038	3,438,585	7,791,017	
VPL (Euro)	260,514	114,053	244,847	126,422	648,790	1,470,003	
TIRF (@10%)	32.9%	25.2%	24.3%	29.8%	75.5%	85.8%	

20. Table 5 shows the Project costs and the logical framework indicators, where the strengthening and effective transfer of assets to producer organizations and communities generate their impacts. The cost per beneficiary is 1,654 euros and 380 organizations are expected to be assisted, with an adoption rate of 80%.

Table 5: Project Costs and Indicators for the Logical Framework

Project costs and indicators						
Total Project Costs ('000 Euros)		139,000.00 €	Basic cost	\$ 45,709	UCP	1
Beneficiaries (families)	84,045	People	336,180	Youngs	13,044	Adoption rate 80%
Cost per Beneficiary	1,654 €	Euros per person	413 €			
Custos e Componentes (000 USD)			Indicators			
A. Rural development with environmental sustainability based on agroecology	\$	85,008	Local Rural Development Plans (PDRL)	380		
			Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture	34200		
			Business plans to strengthen processing and marketing (medium/large)	5		
B. Access to water, sanitation and social technologies	\$	39,149	Rural Community Water Access - Implementation	2970		
			Cisterns for human consumption	5000		
			Cisterns for agricultural production	3000		
			Eco-efficient stove	4000		
C. Knowledge Management and South-South and Triangular	\$	4,000	Experience exchange activities between farmers in the state	25		
			Sustainable management of natural resources course	60		
			Tank truck water treatment equipment for human consumption	60		
			Triangular and South-South Cooperation	8		
D. Project Management, M&E, KM and SSTC	\$	10,843	UGP	1		

Economic evaluation

21. The analysis from the economic point of view incorporated the values of the economic price of the cost of unskilled labour, which is proportional to the high unemployment rate found in rural areas, and the economic price of the factors of production, the conversion factor for the shadow price of the exchange rate and the value of the 7% social discount rate. The difference parameters in relation to market prices are shown in Table 6.

22. The adoption rate for the participation of small family farmers was estimated at 80 per cent and a constant rate is used for the evaluation.

Table 6: Main assumptions and shadow prices

c)		Hypothesis and conversion factors			
FINANCIAL	Hipoteses	Line	Price of inputs	Price	
	FINANCIAL	Model I: Agroecological Cotton	19.9%	Ureia (kg)	1.5
Model II: Sheep on irrigated forage		9.7%	Milho (kg)	1	
Model III: Agroforestry System		38.0%	Potassio (kg)	1.8	
Modelo IV: Hortaliças agroecológicas sob irrigação		25.0%	NPK (kg)	1.2	
Model V: Beekeeping		26.1%	Combustível (lt)	4.8	
Model VI: Free-range chicken for meat and eggs		58.9%			
ECONOMIC	Exchange rate (OER)	5.3	Update factor (Fin)	10%	
	Shadow exchange rate (SER)	5.49	Update factor (Eco)	7%	
	Standard Conversion Factor (SCF)	1.04	FC- inputs	0.74	
	Labor conversion factor	0.92	FC- outputs	1.07	

23. To estimate the costs of the economic analysis, the following adjustments and assumptions were made:

- (a) Adjustment of the transfers that the project will make to direct beneficiaries, transfers to producer organizations at different stages of development and strengthening of organizations, as well as investments in infrastructure, equipment and incorporation of technologies are among the most important;
- (b) Adjustment to price contingencies because imported distorts real prices.

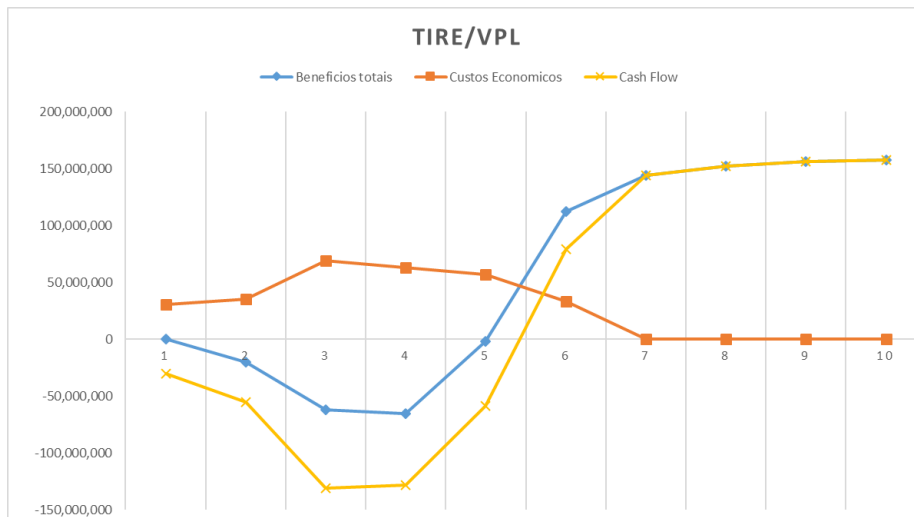
24. The results show that the Project is economically viable with: i) IRRe 23.5%; ii) NPVe of the incremental net benefit of R\$706,289,613 Reais and a benefit/cost ratio of 4.13. Table 7 shows the cash flows and reference indicators.

Table 7: Economic analysis

Table of calculation of IRR and VPL										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Benefits M1	-	-	2,707,241	5,295,566	2,326,656	6,833,736	10,640,870	10,826,517	10,826,517	10,826,517
Benefits M2	-	7,151,715	14,542,709	16,039,200	1,609,953	16,779,040	17,958,549	18,377,586	19,081,599	19,097,246
Benefits M3	-	998,481	4,025,237	7,787,165	42,467,706	3,361,364	20,052,465	24,413,519	27,861,801	29,248,474
Benefits M4	-	545,944	2,587,015	2,899,819	11,334,536	6,668,381	8,766,186	10,405,095	10,405,095	10,405,095
Benefits M5	-	6,551,329	17,395,578	29,084,420	20,136,256	26,823,008	31,215,286	31,215,286	31,215,286	31,215,286
Benefits M6	-	4,707,506	20,442,842	4,010,828	32,225,555	51,568,289	55,329,567	56,565,335	56,822,612	56,822,612
Total benefits	0	-19,954,975	-61,700,621	-65,116,999	-2,157,135	112,033,819	143,962,922	151,803,338	156,212,910	157,615,230
Economic Costs	30565422	34984980	69243120	62922960	56608120	32912840	0	0	0	0
Cash Flow	-30,565,422	-54,939,955	-130,943,741	-128,039,958	-58,765,255	79,120,980	143,962,922	151,803,338	156,212,910	157,615,230
IRR	23.5%									
VPL (\$R @ 7%)	\$ 706,289,613									
VPL (€ @ 7%)	133,262,191 €									
Ratio B/C	4.13									

25. The results in Table 8 show the Project's benefit, incremental benefit and cost curves.

Chart 8: Cash Flow Graph and Incremental Benefits



Sensitivity analysis

26. The sensitivity analysis, table 9, shows that the Project's economic viability indicators are very robust regarding different variations in the context. However, the greatest sensitivity lies in delays in the project's implementation, which, however, do not reveal indicators that are too worrying, as they remain positive.

27. The analysis was carried out forecasting different risks from independent variables, such as reductions in profits, increases in production costs, possible delays in the implementation of the plans and the execution of hydraulic works infrastructure, the low negotiating power of producer organizations to set prices, fluctuations in "natural" market prices and variations in the rates of technological adoption by producer organizations..

28. The calculated economic indicators provide the Government of the Federative Republic of Brazil and the Government of the State of Ceará with the necessary reference values to compare the investment in the Project with other possible investments. This economic evaluation did not consider intangible or complex-to-measure benefits, such as the proven social and environmental benefits, improved access to drinking water and the impact on the development of gender equity activities and the inclusion of young people in the participation of organizations.

Table 9: Project sensitivity analysis

Sensitivity analysis								
	$\Delta\%$	Risk	IRRe	VPL (\$R)	VPL (USD)			
base scenario								
Project Benefits	-10%	Productivity, pricing and adoption risks	23.46%	440,431,984	83,100,374			
Project Benefits	-20%		21.84%	369,561,136	69,728,516			
Costs	10%		20.07%	298,690,288	56,356,658			
Costs	20%	Incremento de custos e preços	22.33%	419,889,165	79,224,371			
Costs	20%		21.30%	399,346,346	75,348,367			
1 year delay in benefits		Delay in adoption and results, Risks of a political nature in the processing of the project and its approval, risks related to weaknesses of the executing entity	20.95%	357,326,419	67,420,079			
2 year delay in benefits			18.73%	281,775,906	53,165,265			
Climate event every 4 years	50% Benef	Climate risks	23.45%	427,261,189	80,615,319			
Climate event every 3 years	50% Benef		22.49%	398,865,433	75,257,629			
Combined scenario		Costs	10%	Benefits	-10%	20.74%	349,018,317	65,852,513
			10%		-20%	19.01%	278,147,469	52,480,655
			20%		-20%	18.02%	257,604,650	48,604,651
			20%		-30%	16.15%	186,733,802	35,232,793
			20%		-10%	19.73%	328,475,498	61,976,509

29. This appendix presents an annex 1 with the aggregate flow of funds of the models, the prices used to calculate the cash flows and an annex 2 which is the file EFA_PPFII_ExAnte_02_2024.xls in which all the models are incorporated with the details of the investments, the operating costs and the financial and economic prices.

Annex 1

Table 1: Economic flow of the Project

Paulo Freire II Project cash flow - PPF II- State of Ceará- Federative Republic of Brazil																			
In Brazilian reais (R\$)																			
Cash flow Economic		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10								
Modelos																			
Aggregation M1		-	-	2,707,241	5,295,566	2,326,656	6,833,736	10,640,870	10,826,517	10,826,517	10,826,517								
Aggregation M2		-	7,151,715	14,542,709	16,039,200	1,609,953	16,779,040	17,958,549	18,377,586	19,081,599	19,097,246								
Aggregation M3		-	998,481	4,025,237	7,787,165	42,467,706	3,361,364	20,052,465	24,413,519	27,861,801	29,248,474								
Aggregation M4		-	545,944	2,587,015	2,899,819	11,334,536	6,668,381	8,766,186	10,405,095	10,405,095	10,405,095								
Aggregation M5		-	6,551,329	17,395,578	29,084,420	20,136,256	26,823,008	31,215,286	31,215,286	31,215,286	31,215,286								
Aggregation M6		-	4,707,506	20,442,842	4,010,828	32,225,555	51,568,289	55,329,567	56,565,335	56,822,612	56,822,612								
Total Aggregate net incremental benefits		-	19,954,975	61,700,621	65,116,999	2,157,135	112,033,819	143,962,922	151,803,338	156,212,910	157,615,230								
Total Economic project Costs (a)		30,565,422	34,984,980	69,243,120	62,922,960	56,608,120	32,912,840	-	-	-	-								
Economic cash flow		-	30,565,422	54,939,955	130,943,741	128,039,958	58,765,255	79,120,980	143,962,922	151,803,338	156,212,910	157,615,230							
		<table border="1"> <tr> <td>NPVc</td> <td>225,941,709</td> </tr> <tr> <td>NPVb</td> <td>932,231,322</td> </tr> </table>		NPVc	225,941,709	NPVb	932,231,322	<table border="1"> <tr> <td>VAN</td> <td>706,289,613</td> </tr> <tr> <td>TIR(E)</td> <td>23.5%</td> </tr> </table>		VAN	706,289,613	TIR(E)	23.5%	<table border="1"> <tr> <td>Tasa de descuento</td> <td>7%</td> </tr> <tr> <td>B/C</td> <td>4.13</td> </tr> </table>		Tasa de descuento	7%	B/C	4.13
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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

The SECAP Review note should build on the preliminary note mentioned above, draw on the results of the screening exercise and be informed by the issues raised during the design mission, the stakeholders interviews, publicly available tools and dataset, and environmental, social or climate-related studies that inform on the characteristics of the project location. The SECAP review note includes the revised ESMP and should be attached to the Project Design Report, integrated in Draft Project Implementation Manual (PIM) and COSTAB and shall be submitted to Design Review Meeting (DRM) or IRC (for NSOs).

1. Introduction

1. The main objective of this study is to provide the analytical basis for the social, environmental and climate sustainability of the Paulo Freire II Project (PPF II, henceforth), as well as to inform and strategically guide the project implementation in accordance with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). The study identifies current and potential social, environmental and climate issues relevant to the Project to analyze trends and evaluate viable and sustainable options and to adequately manage risks, mitigate possible impacts and seize opportunities to achieve the proposed strategic objectives.
2. To examine the project's social, environmental, and climatic context an exhaustive compilation, review, and synthesis of the available literature (scientific, academic, official and from renowned third sector institutions) was carried out. The technical, institutional, regulatory, and political frameworks of the Ceará State Government were also analyzed through documentation and discussions with the state's technical teams.
3. Based on the SECAP screening tool, the project has a moderate environmental and social category. However, all the identified risks at this stage can be managed and have known mitigation measures, whose implementation should not present challenges. Based on this assessment, an Environmental, Social and Climate Management Plan (ESCMP), a Free, Prior and Informed Consent Implementation Plan (FPIC Implementation Plan) and an Indigenous Peoples Planning Framework (IPPF) were prepared in the design phase. The climate risk of the Project is rated as substantial, and a Targeted Adaptation Assessment (TAA) will be prepared during design. In addition, a Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) were developed.

2. Situational analysis and potential project impacts

4. The goal of Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty Project (Paulo Freire – PPF II) is to reduce rural poverty and food and nutrition insecurity in family farming. Its Development Objective is to increase the sustainability of production systems and the resilience of family farmers. The Project will also address gender inequalities and social exclusion and strive to empower women, youth, traditional peoples and communities (PCTs), and the LGBTQIAP+ community. Specific activities will also be part of the Project to address malnutrition issues.
5. 62,000 family farming families (around 248,000 people) will benefit directly from the Project, of which at least 50% will be represented by women, 15% by young people, and 2% by Traditional Peoples and Communities (PCTs). The target population consists of rural families living in poverty and extreme poverty, whose livelihoods are based on low-productivity family farming, mainly ensuring self-consumption with the sale of surpluses and, in some cases, commercial and small-scale livestock farming. The Project's main target groups are: i) family farmers living in poverty and extreme poverty, ii) rural women, iii) rural youth, iv) PCTs, and v) LGBTQIAPN+.
6. The PPF II is structured in three components:
7. **Component 1: Rural development with environmental sustainability based on agroecology:** The aim is to implement investments for the development, diversification, and adaptation of family production capacity, with actions carried out to promote and encourage the adoption of agroecological practices and the conservation and preservation of natural resources. It also aims to improve agricultural product processing units' structure and capacities to boost marketing (cooperatives and others). It will also support mainstreaming activities in gender, youth, Traditional Peoples and Communities (PCTs), and nutrition. This component is subdivided into three sub-components: 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty; 1.2. Strengthening the Marketing and Processing of Family Farming Products; 1.3. Gender, Youth and Food and Nutrition.
8. **Component 2: Access to water, sanitation, and social technologies.** This Component aims to invest in water for domestic use and agricultural production, household sewage, and renewable energy. This will allow it to be maintained over time and to raise awareness of how to improve good practices in the use of water for domestic purposes, hygiene, and sanitation among the population as a means of having a greater impact on nutritional security and the health of the community. This component will carry out small infrastructures for accessing and storing water for agricultural production. Whether for community or family use, the investments will guarantee access to water of better regularity and quality, as well as reducing the contamination of soil and water with waste produced in family units. Practices and technologies for the rational use of water will be systematically introduced to adapt to climate change. To help build innovative solutions, the Component will finance the dissemination of sustainable innovations developed by local microentrepreneurs and public agencies. This component is subdivided into 2 sub-components: 2.1. Rural Community Basic Sanitation; 2.2. Social Technology for Access to Water and Support for Production.
9. **Component 3: Knowledge Management and Cooperation for Adaptation to Climate Change (INOVA CLIMA).** This component will be grant-funded (100% AECID grant resources) and will aim to promote capacity building among small producers and TA teams, foster environmental and nutrition education to ensure food and nutrition security in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semi-arid environment. Replicable pilot projects will be developed and exchanges organized, following the model of Triangular and South-South Cooperation (CTSS). It also aims to support the PMU to strengthen the state's institutional capacity to implement PPF II and the actions financed by Component 3. This component is subdivided into 5 sub-components: 3.1. Capacity building for family farmers and rural extension teams (Technical Assistance, TA); 3.2. Promoting environmental and climate education with a gender focus in rural schools; 3.3. Promotion of research on technology and implementation of pilot projects; 3.4. Knowledge Management and South-South and Triangular Cooperation (CSST); and 3.5. Strengthening the PMU for the implementation and monitoring of activities.
10. **Project Management, Monitoring and Evaluation (M&E), Knowledge Management (KM), and SSTC:** It will be responsible for carrying out all the necessary project management activities to ensure efficient implementation through a Project Management Unit (PMU) under the responsibility of the Secretariat for Agrarian Development (SDA). The M&E system will support the planning, monitoring, and evaluation of results. Knowledge Management and South-South and Triangular Cooperation (CSST) will enable the preparation of materials/systematizations on PPF II good practices, as well as allowing the exchange of knowledge through exchanges in the state of Ceará, the semi-arid region of Brazil and other countries.

2.1 Socio-economic assessment

a. Overall poverty situation

11. In 2020, the Gross Domestic Product (GDP) of the Ceará State was R\$166.915 billion, and the GDP per capita was R\$18,168.35, 49% below the national average^[11]. Ceará's Human Development Index (HDI) was 0.682 in 2010, considered average. That same year, Ceará ranked 17th out of the 27 Brazilian states. However, the Rural HDI was 0.575 in 2010, classified as low^[12]. Regarding income inequality, in 2019, the state's GINI index was 0.547, higher than the Northeast (0.531) and Brazil (0.509)^[13].
12. In terms of the percentage of households with children living in poverty, the state has the 4th worst situation among Brazilian states, with 59% of children living in this condition^[14]. The social vulnerability of the population living in poverty can be seen in the persistence of illiteracy, food insecurity and the persistence of endemic diseases, among other consequences of the lack of basic social protection. The proportion of people with some degree of multidimensional vulnerability in Ceará fell from 93.9% to 78.9% between 2008/09 and 2017/18. The proportion of people with some degree of poverty also fell, from 63.6% to 30.9% in the same comparison^[15]. Nevertheless, in the context of the COVID-19 pandemic, the health, economic and social situation in the Ceará state has worsened. In 2020, with the reduction in emergency aid^[16], the state's extreme poverty rate increased by 8.18%^[17]. In addition, between 2019 and 2020, there was a 5.4% increase in the unemployment rate in the state. Family farmers have been particularly affected by the restrictions imposed by pandemic control, suffering reduced income, difficulties in disposing of production and maintaining production processes, which has accentuated pre-existing structural inequalities^[18].
13. In the semiarid region of Ceará, there is a clear correlation between poverty rates, environmental constraints (shallow, and often degraded, soils, extreme heat, and irregular rain regimes) and food and nutritional insecurity. The agricultural activities that prevail in the semi-arid region of Ceará depend exclusively on rainfall, which is generally irregular and scarce. Therefore, rainfed agriculture (which represents 95% of cultivated land) is the main activity for many family farmers and is of great relevance both in the composition of family income and in promoting food and nutritional security, and often explains the significant social and economic impacts of droughts. The high geographical and temporal variability of rainfall, lack of irrigation and inadequate soil management, which lead to land degradation, contribute to the high levels of poverty in the region^[19]. Climate change is expected to have a significant impact on Brazilian agriculture, further increasing the occurrence of droughts that affect crop productivity and aggravate food insecurity. ^[10]
14. The Project area has a population of 2.499.605 people^[111], of which 1,123,322 people live in poverty (45% of the total)^[121]. There are 178,143 farms in the project area, of which 135,702 (or 76.2%) are family farms. Of the total number of family farms, 25,122 (or 18.5%) are managed by women and 15,879 (or 11.7%) by young people under the age of 35.

b. Gender

15. According to the 2022 Demographic Census, in the Project area, there are 1,271,632 women, corresponding to 50.9% of the total population, and 1,227,973 men (49.1% of the total population).^{[13][14]}
16. In Ceará, the Gender Disparity Index is 0.66, indicating that women in Ceará are 34% less likely to have the same opportunities as men, with the biggest gaps being in the dimensions of political empowerment and economic participation and opportunities.^[15] In addition to the undervaluation of women's productive work, gender disparities are expressed in restrictions on control and access to natural, social, and monetary resources. Great inequality persists in the management of production units: only 18,5% of family farming establishments in the semi-arid region of Ceará are run by women and only 13,6% by young women under the age of 35.^[16] In terms of area, the average area (hectares) of establishments run by men is 76,6% bigger than those run by women (7.7ha x 13.6ha). Among the multiple legal, cultural, and structural barriers that exclude women from land rights are patriarchal culture about the gender division of labor in the public and private spheres and the practice of ceding land rights only to one representative of the family - the man.
17. One strategy for rural women to expand their space and independence has been education, with women usually having higher levels of education compared to men. Among women family farmers in the project area, 20.8% have never been to school, while among men, 28.3% have never been to school. Despite the better educational indicators, women's average income is lower - northeastern women earn on average 86.5% of men's income.^[17] The so-called selective rural exodus of more educated young women is a contemporary phenomenon that is intensifying in the context of agricultural modernization. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of rural family farming (FF) establishments aged up to 35 in the semi-arid of Ceará fell 9.7 percentage points (from 21.2% to 11.5%). The invisibility and devaluation of women's labor, in caring for children and household chores, and in family farming, also encourages younger women to leave rural areas.
18. Despite women's fundamental contribution to agri-food production, social reproduction of family farming and community development, their work is often made invisible because they are not part of the formal labor market and because part of women's productive activity does not involve monetized transactions. IBGE data (2017) shows that 86.5% of female family farmers in the semi-arid region of Ceará produce for their own consumption, compared to 80.7% of men. An IFAD study also shows that self-consumption represents 34.1% of the production value brought by women family farmers in IFAD projects^[18], compared to a national average of 17.8%.^[19] With work dynamics concentrated in the private sphere, they are generally excluded from decision-making on the use of financial resources.
19. Access to Technical Assistance (TA) for women is also lower than for men. While 11.6% of male family farmers (FFs) in the project area receive TA, only 8.7% of female FFs do. There are also lower rates of membership of Rural Organizations (ROs), such as associations and cooperatives. According to the 2017 Agricultural Census, among the female family farmer leaders in the Project area, 178 were members of cooperatives (0.7%) and, among men, 899 (0.8%) were cooperative members. In addition to more limited participation, women often do not have an equal voice because they are not equally represented in positions of power within the ROs.
20. Rural women in the Project area also suffer from double working hours and a workload that exceeds that of men, including a higher proportion of unpaid domestic responsibilities related to food preparation and the collection of firewood and water.^[20] In Brazil, women work on average 7.5 hours more per week than men. They are also more vulnerable than men to environmental and climate challenges because of their social roles, for example as the main collectors of water, food, and firewood in a context where increasing pressure on natural resources and environmental degradation are negatively affecting water and food supplies, because of the discrimination they suffer and their poverty rates.^[21]
21. Violence in rural areas is increasing every year, as shown by the growing number of murders of rural workers. The "Conflicts in the Rural Areas of Brazil 2022" report by the Pastoral Land Commission (CPT) shows that the number of conflicts in the rural areas has increased from 804 cases in 2013 to 1500 in 2022; in 2022 alone, 47 murders were recorded compared to 35 in 2013.^[22] Domestic violence is also dramatic in rural areas and the number of female murders (femicides) has increased. IPEA data for Ceará indicates a femicide death rate of 10.2 women per 100,000 in 2018, the second highest rate in Brazil.^[23] In Ceará, the rates of violence show that black women suffer much more physical and psychological violence when compared to non-black women. They are also the biggest victims of femicides^[24], suffering femicide rates four times higher than white women. The lack of facilities in the Network to Combat Violence against Women makes rural women more vulnerable to violence and restricts their access to protection.

c. Youth

22. According to the 2022 Demographic Census, in the Project area there are 502.541^[25] young people (15 to 29 years old)^[26], representing 23,7% of the total population. Among youth, 49% are women (295.296 people). The main challenges faced by rural youth in the Project area are: i) lack of employment and income opportunities (with little diversification of agricultural and non-agricultural activities that attract young people), ii) lack of access and control over resources, inputs, goods and technologies, iii) limited access to public policies and services and iv) low participation and decision-making power in rural and community organizations.
23. Around 25% of young people in Ceará are considered vulnerable to poverty because they neither study nor work, the majority being black men and women^[27]. Young women of African descent have a higher percentage of being out of school and the labor market. The precarious living conditions and limited opportunities for sustainable study and work in the semi-arid region of Ceará have led to rural youth migrating to urban areas, mainly for young women with more schooling, a process that is reflected in the increase in the proportion of men (masculinization) and aging of the rural population, which challenges family succession. The phenomenon of young women being the ones who leave the rural areas the most is also related to their refusal to take on the same roles played by their mothers and grandmothers in the family production unit^[28]. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of family farming units in the semiarid of Ceará under 35^[29] decreased by 9.7%. The lack of public policies that focus on the demands and needs of rural youth is also among the root causes of the emigration of young people from Ceará.
24. For those young people in the Project area who want to remain in family farming, the factors that influence them are financial resources and training access, the appreciation of rural lifestyles, the availability of services and conditions that can offer the possibility of success in agricultural production^[30]. However, in the Project area, only 11.7% of family farms are managed by youth under 35 and only 10% of youth under 35 have access to technical assistance, as well as extremely limited access to credit^[31]. The modernization of agriculture, which is a fundamental means of increasing income, reducing production costs through the use of more efficient technologies and greater access to new and differentiated markets, is a strategy that can contribute to the revaluation of the rural productive space by young people.
25. With regard to child labor, in Ceará in 2019, 82,264 children and adolescents aged 5 to 17 were in child labor, which was equivalent to 4.7% of all children and adolescents in the state^[32]. Working children and adolescents in Ceará spent 15.7 hours of their time on work activities in 2019.

d. Indigenous peoples

26. Indigenous Peoples and Traditional Communities (PCTs)^[33] in the Project area are impacted by the combined effects of numerous forms of discrimination, by gender, race, and socio-economic conditions. PCTs are particularly vulnerable due to historical structures of exclusion, high dependence on natural and ecosystem resources affected by mismanagement, climate change, marginalization of their ways of life and exclusion from public policy-making. As a result, they face even greater obstacles to participating in decisions that affect their territories and to the full realization of their civil and human rights, with significant inclusion gaps in terms of poverty, access to basic services such as health and education, technical assistance, land, water, and sanitation. PCT women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty, and food insecurity, as well as more limited access than other women to public health and education policies, among others. They are also the target groups most vulnerable to climate change.
27. Indigenous people. The 2022 Demographic Census recognized just over 56,000 indigenous people in the state of Ceará, while the previous one, from 2010, counted around 19,300 indigenous people living inside and outside Indigenous Lands (ILs). Ceará is currently the ninth state in Brazil with the largest indigenous population. The state is following the national trend of an increase in the indigenous population. The Census data also shows the municipalities where there were more indigenous people in absolute numbers, with the municipalities of Caucaia (17,628 indigenous people) and Itarema (5,115 indigenous people) in the top positions.
28. In Ceará there are currently 30 Indigenous Lands (ILs), occupying an area of approximately 22,330 hectares and with a population of around 23,000 inhabitants (MPF, 2022). Among these, the largest is the Tapeba Indigenous Land totaling approximately 5838 hectares and having a population of 6552 people^[34]. The indigenous peoples of the Caatinga often live in reduced areas and suffer intense pressures that cause serious social, environmental, and climatic vulnerability.
29. Within the rural area covered by the Project, there are 10,266 indigenous people, 49.7% women and 25.6% youth^[35]. Of the total indigenous population, only 6,842 live in indigenous territories^[36]. Among family farmers, the 2017 Agricultural Census indicates that at least 798 are indigenous. Among the indigenous people registered in the Single Registry in the Project area (8,053), 76.6% are in poverty.
30. The majority of the indigenous population is facing accelerated social transformation and needs to seek its physical and cultural survival and guarantee a better quality of life for current and future generations. It is estimated that in Brazil, less than 5% of young rural indigenous people aged between 20 and 29 have 13 or more years of schooling^[37]. In terms of health, infant mortality in the first year of life for indigenous children is three times higher than the national average. Between 2018 and 2021, the Special Secretariat for Indigenous Health (SESAI) recorded 3,126 deaths of indigenous children aged 0 to 5, mostly due to preventable and treatable diseases such as diarrhea and malnutrition. 72% of the deaths were of children under the age of 1. The precarious situation of indigenous children is evident in the fact that anemia affects 50% of them.
31. Quilombolas^[38]. The 2022 Demographic Census indicates that there are 10,437 quilombola people in the Project area, of which only 2,033 live in quilombola territories. In the Project area, there are 34 Quilombo Remnant Communities (CRQ) certified by the Palmares Cultural Foundation^[39], distributed across 15 municipalities^{[40][41]}. Among the quilombolas registered in the Single Registry in the Project area (3,433), 71.9% are in poverty or extreme poverty^[42]. Their main economic activities are based on subsistence agriculture associated with extractivism and artisanal fishing. Quilombola identity is strictly associated with belonging to the collective territory in which they live. Like other traditional communities, they make common use of natural resources and their relationship with the environment is based on differentiated cultural practices. Although the 1988 Brazilian Constitution recognizes the CRQ as legal holders of the right to the land they have historically occupied, the process of recognizing and regularizing quilombola territories is still challenging and these communities often suffer from human rights violations, having historically been subjected to a process of expropriation of their territories. The Quilombola Nutrition Call, which took place in 2006, found that 15% of children under the age of 5 were short for their age, expressing severe malnutrition^[43]. With regard to public infrastructure access, 11% of the quilombola communities surveyed did not have a Community Health Agent, 38% did not have a Family Health Establishment (PSF). Garbage was not collected in 71% of quilombola households and almost half of them (45.8%) had open sewers. Even when there are public health services, their organizational logic disregards the dynamics of the groups' territories^[44].
32. Artisanal fishers. Artisanal (or small-scale) fishing, carried out by self-employed producers using traditional techniques, is inherited by generations of fishers and plays a fundamental role in biodiversity conservation, food security and poverty eradication. According to data from the 2013 PNAD, artisanal fishers (self-employed, unpaid, and producing for their own consumption) make up the vast majority of Brazilian fishers (90.3% or 440,266 workers)^[45]. The marginalization suffered by this group in Brazil is evident in the socio-economic indicators available for this population. The majority of artisanal fishers declared that they only depended on fishing to survive and the *per capita* household income of subsistence fishers was less than half the national minimum wage in 2013 (corresponding to 46.6% of it), while that of professional fishers was only slightly higher (equivalent to 59.3% of the minimum wage)^[46]. Among the artisanal fishers registered in the Single Registry in the project area (3,002), 62.7% are in poverty.
33. Other traditional peoples and communities. In addition to indigenous peoples, quilombolas and artisanal fishers, the project area is home to many unidentified traditional and culturally differentiated communities that occupy and use territories and natural resources as a condition for their cultural, social, and economic reproduction, including: terreiro communities, extractivists (non-timber products), river dwellers, gypsies, shellfish gatherers and caboclos. There is often an overlap between these social segments.

e. Marginalised groups

34. Agrarian Reform Settlers. The rural environment of the Brazilian semi-arid region is still marked by high land concentration, socio-economic inequalities, and agrarian conflicts^[47]. Around 1 million Brazilian families are settled by the agrarian reform. The Northeast concentrates 30% of these families and 11.2% of the hectares earmarked for settlements in the country. Data from the Single Registry (2023) indicates that there are 2,468 agrarian reform settler families registered in the project area, 51.0% of whom are in poverty. In addition to the high poverty rates, this group has other socio-economic vulnerabilities, including: i) insecure access to land, since not all of them have been granted land titles; ii) water insecurity, since the collective sanitation and water access infrastructures are non-existent, precarious or have not been completed; iii) lack of access to technical assistance; and iv) precarious access to public credit, education, security, health and housing policies, among others.
35. People with disabilities. According to the IBGE, the Northeast was the region with the highest percentage of people with disabilities, 10.3% of the population or around 5.8 million people^[48]. The survey also showed that the highest percentages were women and self-declared black people. Data from the Single Registry (2023) indicates that there are 281,661 people with disabilities in Ceará, 44.8% of which live in the Project area (126,265 people). Disability and poverty are closely linked, with people with disabilities facing significant stigma and discrimination. For example, they have lower success rates at school and more limited access to economic activities, both of which are major factors contributing to family poverty. People with disabilities face a number of challenges throughout the life cycle. There is a relatively high number of female-headed households receiving the main tax-funded disability benefit in Brazil, the Continuous Social Assistance Benefit, and this may be related to the high rate of abandonment of children with disabilities by their parents. There are some additional gender dimensions that impact the challenges faced by people with disabilities. Women and girls with some form of disability are at high risk of abuse, and this is especially the case for those with cognitive disabilities. Furthermore, until the Brazilian Inclusion Law (2015) was enacted, it was still routine for women with cognitive disabilities to be sterilized without consent. Caring for people with disabilities also has a significant gender dimension. In general, women face the double burden of needing to both earn an income and provide care, and this burden is only exacerbated when family members are disabled. It should also be noted that disabled women can also have a disproportionate burden of care placed on them, as they can still be expected to care for other members of their family.
36. LGBTQIAPN+ community. The lack of government data on the socio-economic and political challenges faced by the LGBTQIAPN+ community is indicative of the statistical invisibility and marginalization of this group. The lack of a social assistance policy, the rural exodus of the LGBTQIAPN+ population to urban centers, the lack of family support, the limited access to income and low employability in the rural areas, the difficulty of staying in the school environment due to prejudice, especially for the trans population, are some of the factors that keep data on the LGBTQIAPN+ population in rural areas invisible. Brazil is an extremely unsafe country for this population, as indicated by the upward trend in the number of violent deaths of LGBTQIAPN+ people over the last two decades. Between 2000 and 2022, 5,635 (five thousand six hundred and thirty-five) people died as a result of gender prejudice and intolerance. In 2022, there were a total of 273 deaths of LGBTQIAPN+ people, a national average of 1.31 deaths per million people^[49]. Most of the deaths occurred among young people aged between 20 and 29 and the Northeast region had the highest absolute number of violent deaths.

f. Nutrition

37. After experiencing a significant drop in food insecurity between 2004 and 2013 (a period during which social policies have been extensively deployed), food insecurity rose again with the economic crisis that hit the country after 2015. As a result, food insecurity was affecting 47% of Ceará families in 2017, and at severe level (hunger) for 175,000 of them^[50]. During the pandemic (2022), the Brazilian Research Network on Food and Nutritional Sovereignty and Security (PENSAAN) found that only 18.2% of households in Ceará were food secured, a proportion significantly lower than the percentage attributed to the Northeast region (31.9%)^[51]. At that time, 26.3% of Ceará households were suffering from hunger, which represented 2.4 million people^[52]. Ceará was therefore the eighth state with the highest proportion of households with residents living with severe food insecurity in Brazil^[53]. The significant drop in incomes resulting from the economic and political crisis as well as the successive droughts that are severely impacting the food production of the state are among the main causes that led to that situation. The latter translates into higher consequences on health and nutrition for the most vulnerable households.
38. Although significant improvements in child health were recorded in Ceará between 1987 and 2007 (breastfeeding rate increasing by 43%, chronic malnutrition rate dropping from 28% to 13%, acute malnutrition dropping from 13% to 5%, diarrheal diseases contributing to 3.9% of child mortality against 36.6% in 1986)^[54], malnutrition persists and is characterized by the lack of adequate breastfeeding practices, the increase in overweight and obesity prevalence and micronutrient deficiencies, affecting in particular women and children. A study carried out in 2017 in the state^[55] showed that 8.2% of children suffered from stunted growth, 3% were underweight and 2.1% suffered from emaciation. Among women (adolescents and adults of childbearing age), iron deficiency anemia was estimated at 28.57% for the Northeast Region, one of the highest rates of the country. The [Food and Nutrition Surveillance System - SISVAN](#) also observed a clear decrease in the consumption of three main meals a day on a sample of 15,000 adults perceiving the former Bolsa Família in Ceará, with a higher tendency among women. Economic and social vulnerability and the increase in single-parent households, mostly headed by women, may have contributed to this trend. The prevalence of exclusive breastfeeding was only 2% in the 1980's and the country showed dedication for a change, including by providing better prenatal care. Still, the prevalence of exclusive breastfeeding at national level remains at 45.8% (SOFI, 2023), which is low compared to other countries. Exclusive breastfeeding during the six first months of life of the infant presents several health benefits; breast milk contains all the nutrients needed for growth and development and protects against disease such as diarrhea, pneumonia. In addition, it prevents from the risk of overweight and obesity in childhood and adolescence.
39. Taking a closer look at the diets, results from a study on trends in food consumption by adults in the Northeast observed that between 2015 and 2020 the consumption of fruit and vegetables has increased significantly. At the same time the consumption of ultra-processed foods increased dramatically too^[56]. Indeed, there was a significant increase in the consumption of certain unhealthy food such as hamburgers and sausages (83.3%), cookies (39.1%) and sugary drinks (25.5%). This trend coincides with the high prevalence of obesity and overweight at a national level, where 28.2% of adult women (aged 18 and over) and 21.1% of adult men live with obesity^[57] and where over 70% of adults of 40 to 59 years old live with overweight^[58]. According to a recent study on the food and nutritional security of indigenous peoples in Brazil, less dependence on local food production and greater age and parity are some of the factors associated with overweight and obesity among indigenous women^[59]. The typical Brazilian diet consists of a lot of rice, beans, fresh fruit such as açaí, papaya and guava, as well as tubers such as manioc and yams. However, young Brazilians are becoming less and less familiar with the many traditional indigenous foods and dishes and the consumption of traditional food is overall decreasing. The consumption of unhealthy food and the lack of physical activity are some of the factors linked to the development of non-communicable diseases (NCDs) (diabetes, cancers, cardiovascular and respiratory diseases). According to a scientific study, major NCD deaths could be prevented by reducing overweight and obesity.^[60]

2.2 Environment and climate context, trends and implications

40. This section gives an overview of the Environment and climate context, trends and implications in the project areas.

a. Environmental assessment

41. Around 92% of Ceará's territory is located in the semi-arid region of Brazil, in the Caatinga Biome. The Caatinga biome covers the interior of northeastern Brazil, stretching across nine states: Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia, and parts of Minas Gerais (see map below). It covers 850,000 km² - around 10% of Brazil's surface area. Located between 3°S 45°W and 17°S 35°W, the Caatinga experiences irregular winds from all directions. Rainfall is therefore intermittent but intense, averaging 350-800 mm/year. Prolonged periods of drought are common and can last several years when rainfall is well below average. This biome, dominated by xerophytic scrub and thorn forests, has the highest solar radiation and average annual temperature and the lowest levels of relative humidity and rainfall in Brazil.
42. Partly due to the extreme conditions, the Caatinga is rich in biodiversity. The Ministry of the Environment (MMA) records 178 species of mammals, 591 species of birds, 177 species of reptiles, 79 species of amphibians, 241 species of fish and no less than 221 species of bees. Much of this biodiversity is endemic to the Caatinga: 318 of the 932 plant species, 137 fish species, at least 57 reptiles and amphibians and 3 mammal species. Protected areas cover 7.7% of the Caatinga (one of the least protected biomes in Brazil), most of which allow some form of extractive use of their resources. Only 1.2% of protected areas guarantee total protection. In Ceará, this percentage is 0.6%. Therefore, most of the biome's biodiversity and forest resources lie within a productive landscape in which small family properties are one of the main forms of land use.
43. Shallow, often saline soils with low organic matter content are particularly vulnerable to degradation (nutrient depletion, salinization, compaction, and erosion). Livestock farming, an important economic activity in the region, contributes to deforestation, soil compaction and erosion. The problem is aggravated by overgrazing and the use of fire to clear land and remove weeds - leading to the depletion of soil organic matter, loss of fertility and a decline in productivity with perverse effects on producers' incomes. Ceará was the state that lost the most forest formations in the caatinga biome in 36 years. An analysis carried out by MapBiomias using satellite images in the period between 1985 and 2020 recorded that 340,000 hectares were cleared of these formations.
44. Changes in land cover over the last three decades, together with the aforementioned agricultural practices, have aggravated desertification in parts of the Caatinga. According to an assessment using satellite images, covering the period between 1985 and 2020, 112 municipalities (out of a total of 1,130) in the biome have been classified as Areas Susceptible to Desertification (ASD). Ceará has three areas with desertification centers: Irauçuba, Inhamuns and Médio Jaguaribe. A survey carried out by FUNCEME (2016) identified that 70,522 km² of this area are already heavily degraded. Land degradation is a consequence of adverse soil and climate conditions, aggravated by the adoption of unsustainable agricultural practices, in particular: deforestation, the use of fire and overgrazing (especially by cattle).
45. Ceará has 20% of its native vegetation preserved, and in the hinterlands only 10% of the dense arboreal caatinga is preserved. Between 2019 and 2021, deforestation advanced significantly in the state. MapBiomias' Annual Report on Deforestation in Brazil found that deforestation in the state rose from 854 hectares in 2019 to 20,820 hectares in 2021. Between 2021 and 2022, there was a 13% increase in the deforested area.

b. Climate trends and impacts

46. **Climate trends and impacts**^[61]The Caatinga is among the most vulnerable biomes in a scenario of changes in the vegetation cover of the tropical portion of South America, since the increase in temperature, associated with anthropogenic activities to remove vegetation, is conducive to the occurrence of aridification and desertification. The semi-arid region is the most vulnerable to the effects of desertification in Brazil. With rainfall irregularly distributed in space and time, precipitation between 600 and 800 mm per year concentrated in periods of three to five months, high annual average temperature (27 °C) and potential evapotranspiration (2,000 mm/year), it has a negative water balance for a large part of the year.
47. In the Northeast of Brazil (NEB), the General Circulation Models (GCMs) differ in their projected results for rainfall, ranging from an increase to a decrease, but the average of the models indicates a greater likelihood of a reduction in rainfall. The projections of the Brazilian Panel on Climate Change (PBMC) for the NEB are for a decrease of between 10% and 20% in rainfall and an increase of 0.5 to 1 °C in air temperature over the next three decades (until 2040), with a gradual increase in temperature of 1.5 to 2.5 °C and a decrease of between 25% and 35% in rainfall patterns in the period 2041-2070. Significantly warmer conditions (temperature increase of between 3.5 and 4.5 °C) and a worsening of the regional water deficit with a decrease of almost half (40% to 50%) of the rainfall distribution are indicated at the end of the century (2071-2100) in the projections. These changes could trigger the desertification process in the Caatinga (Guimarães et. all, 2016). In Ceará, climate models^[62] point to a significant increase in temperature and the frequency of extreme events, such as droughts and floods. The models also predict a decrease in precipitation, but not a significant one (less than 2%). In addition, climate change forecasts point to an intensification of soil degradation processes, such as salinization, erosion, reduction of organic matter stocks and loss of soil biodiversity. The world's semi-arid regions, such as Ceará and much of Northeast Brazil, are characterized as one of the most environmentally and climatically vulnerable regions, which will suffer from losses in water quality and availability for agriculture, reflecting socio-economic impacts such as productivity losses and rural exodus. Agriculture and semi-arid environments will be severely affected by climate change, since the increase in temperature and decrease in precipitation results in an increase in evapotranspiration and a decrease in the amount of water in the soil available for crops, associated with a lower supply of water for irrigation.
48. These changes will negatively affect plant and animal productivity and biodiversity, as well as exacerbating problems resulting from water scarcity and fires. Family farming is already extremely vulnerable to climate variability given the state's water restrictions and high temperatures. Thus, Ceará's agriculture is at imminent risk, which could result in a decrease in food security and a reduction in farmers' incomes^[63]. According to the State Program to Combat Desertification, the implications of climate change on the rural population in the semi-arid region of Ceará can be summarized as follows: loss of employment, migration, loss of land access, loss of production, livestock, and income. The trend is for family farming incomes to fall, contributing to an increase in inequality, exacerbating existing conflicts (e.g., access to water) and migratory flows from the rural areas to the city. Services to help the population already exist, such as funding for cisterns, agricultural insurance, and water trucks. However, their reach is limited, among other reasons, by land insecurity and incipient environmental regularization.

c. Climate change mitigation

49. The amount of carbon that the project can emit or sequester is being analyzed with the EXACT tool. Given the activities promoted by the project (promotion of agroecological practices, agroforestry, use of bio-inputs, forest restoration, reforestation, and increased access to water for irrigation), it is likely that the project will have negative emissions and help mitigate climate change.

2.3 Target group profiles

Target group	Features	Needs	Project Responses

<p>Family farmers living in poverty and extreme poverty</p>	<p>High rates of poverty and extreme poverty</p> <p>High incidence of food and nutrition insecurity</p> <p>They cultivate mainly in mixed crop-livestock systems, mainly for self-consumption, with some value addition through processing and selling surpluses</p> <p>Agricultural systems with low productivity, diversification, competitiveness, and resilience</p> <p>Low capacity for sustainable food production</p> <p>Limited access to technical assistance and training</p> <p>Limited organizational capacity for adding value and marketing</p> <p>Limited schooling; high illiteracy rates</p> <p>Many do not have secure land titles, which prevents access to public investment</p> <p>Poor or limited access to drinking water and water for productive use.</p> <p>Restricted or non-existent access to basic sanitation</p> <p>Difficulty in accessing public policies aimed at Family Farming</p> <p>Limited decision-making power</p>	<p>Creating employment opportunities and regular, diversified, and sustainable income streams for families</p> <p>Increased productivity, production diversification and resilience of production systems</p> <p>Increase added value of production</p> <p>Access to markets and Technical training</p> <p>Improving nutritional, sanitation and hygiene knowledge and practices</p> <p>Access to sanitation and water for human consumption and production</p> <p>Social and economic empowerment</p> <p>Greater access to inputs, finances, technologies, natural and productive resources</p> <p>Reducing vulnerability to climate and environmental risks</p> <p>Access to land</p> <p>Strengthening Rural Organizations (associations and cooperatives)</p>	<p>Providing specialized and continuous ATER to improve nutrition, food security and production practices for greater productivity, diversification, resilience, and income generation</p> <p>Ensure regular and diversified income streams for families to support economic empowerment and autonomy</p> <p>Promoting access to various public policies, such as credit</p> <p>Strengthening marketing capacities, such as support for access to institutional markets - PNAE and PAA</p> <p>Technology transfer and innovation, such as digital ATER pilots and qualified training for ATER staff</p> <p>Strengthening rural organizations (ROs)</p> <p>Installation of social technologies for water access, support for agricultural production and family infrastructure (cisterns, greywater reuse systems, sanitary modules, eco-efficient stoves, biodigesters)</p> <p>Restoring degraded areas and reducing fires, increasing environmental quality</p>
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Rural women	<p>High incidence of poverty and food insecurity</p> <p>Restricted access to land, credit, technology, inputs, natural and productive resources</p> <p>Difficulty in marketing</p> <p>Double workload</p> <p>Violence against women</p> <p>Limited decision-making power</p> <p>Lack of access to basic services such as education and healthcare</p> <p>Vulnerability to climate change</p> <p>Poor access to water and sanitation</p> <p>Limited access to public policies aimed at family farming</p>	<p>Access to and control over assets such as inputs, land, technology, and credit</p> <p>Market access</p> <p>Empowering women in domestic relations and reducing the double workload</p> <p>Increasing gender equity</p> <p>Training on gender- and age-appropriate hygiene and nutritional practices</p> <p>Participation, voice and leadership in rural organizations and policy dialogue</p> <p>Training opportunities</p> <p>Product diversification</p> <p>Access to social technologies for accessing, storing, and treating water</p> <p>Valuing women's work</p> <p>Valuing women's knowledge, including local biodiversity</p>	<p>Production training and technical assistance by a team with specific experience in working with women</p> <p>Support for access to the PNAE and PAA</p> <p>Drawing up a Gender, Youth and Social Inclusion Strategy and Action Plan</p> <p>Participation and leadership in socio-economic planning (with specific diagnosis of women's demands)</p> <p>Greater participation and leadership in ROs</p> <p>Communication interventions for changing gender behaviors</p> <p>Training on marketing and women's rights issues</p> <p>Training and dialog for greater participation, voice, and leadership of women in ROs</p> <p>Installation of social technologies for access to water, support for agricultural production and family infrastructure (cisterns, greywater reuse systems, sanitary modules, eco-efficient stoves, biodigesters)</p>
Rural youth	<p>Higher incidence of poverty and extreme poverty</p> <p>Lack of job opportunities, income generation and education, resulting in migration to cities</p> <p>Migration to cities</p> <p>Restrictions on access to inputs, credit, technology, natural and productive resources</p> <p>Limited or no land access</p> <p>Limited education access</p> <p>Limited access to a varied and healthy diet</p> <p>Limited decision-making power</p> <p>Lack of public policies focusing on rural youth</p>	<p>Generation of sustainable employment and income opportunities; development and diversification of attractive activities that generate income for young people</p> <p>Access to and control over assets such as inputs, land, technology, credit, and natural resources</p> <p>Opportunities for training and contextualized nutrition education</p> <p>Strengthening networks of youth organizations</p> <p>Support for business development</p> <p>Greater voice, participation, and influence in Rural Organizations</p>	<p>Drawing up a Gender, Youth and Social Inclusion Strategy</p> <p>Promoting the socio-economic empowerment of young people through productive/business plans</p> <p>Supporting youth entrepreneurship and innovation</p> <p>Capacity building for vocational and entrepreneurial training</p> <p>Capacity building on issues such as associations</p> <p>Awareness-raising on nutritional issues</p> <p>Training in associations and leadership so that young people have a greater say in rural organizations</p>

<p>Traditional Peoples and Communities</p>	<p>High incidence of poverty and extreme poverty and food and nutritional insecurity</p> <p>Vulnerability to climate change and poor access to water and sanitation</p> <p>High incidence of the double burden of malnutrition (overnutrition alongside undernutrition)</p> <p>Restrictions on access to inputs, credit, technologies, natural and productive resources</p> <p>Unrecognized traditional knowledge and practices of production, food and management of natural resources that are being lost</p> <p>Land insecurity and vulnerability to land conflicts</p> <p>Lack of access to services such as health and education</p> <p>Limited decision-making power</p>	<p>Creation of sustainable job opportunities and income generation</p> <p>Access to and control over inputs, credits, technologies, natural and productive resources</p> <p>Rescue, recognition, appreciation and dissemination of traditional production, nutrition, and natural resource management practices</p> <p>Valuing socio-biodiversity</p> <p>Improving nutritional, hygiene and sanitation knowledge and practices</p> <p>Land security</p> <p>Access to indigenous and quilombola education and food</p> <p>Technical capacity building and social empowerment</p>	<p>Drawing up a Gender, Youth and Social Inclusion Strategy</p> <p>Promoting the socio-economic empowerment of PCTs</p> <p>Increasing access to public policies and productive development</p> <p>Mapping the particularities of traditional communities;</p> <p>Guarantee of free, prior, and informed consent (FPIC);</p> <p>Provision of technical assistance that is adapted to the practices of traditional communities</p> <p>Specialized ATER for improved nutrition and food security, greater access to public policies, improved productivity, diversification, and resilience</p> <p>Training for ATER teams to respect the cultural identity and ways of life of these communities</p> <p>Scaling and disseminating innovations based on indigenous and traditional knowledge</p>
<p>3. Institutional analysis</p> <p>LGBTQIAPN+ community</p> <p>60. The institutional context and legal framework relating to public policies relevant to the Project includes the Institutions and legal instruments listed below:</p> <p>61. The Secretariat for Agrarian Development (SDA) is responsible for implementing PPF II. For example, the SDA will monitor the activities of component 2 and contribute to studies related to rural exodus of the LGBTQIAPN+ population to urban centers</p> <p>62. The Technical Assistance and Rural Extension Company of Ceará (EMATERCE) will take part in the project's actions involving the training of family farmers.</p> <p>63. The Agrarian Development Institute of Ceará (IDACE), a special authority linked to the SDA, will be responsible for developing activities related to land regularization issues and the preparation of the Rural Environmental Registry (CAR).</p> <p>64. The Environmental Secretariat (SEMA) of the state of Ceará will contribute to the project by assisting the Rural Environmental Registry (CAR).</p>	<p>High rates of gender-based violence</p> <p>The lack of a social assistance policy</p> <p>Rural exodus of the LGBTQIAPN+ population to urban centers</p> <p>Combating LGBTphobia and gender-based violence</p> <p>Creating sustainable work and income opportunities in the rural areas</p> <p>Technical capacity building and training opportunities</p> <p>Access to and control over inputs, credits, technologies and natural and productive resources</p>	<p>Combating LGBTphobia and gender-based violence</p> <p>Creating sustainable work and income opportunities in the rural areas</p> <p>Technical capacity building and training opportunities</p> <p>Access to and control over inputs, credits, technologies and natural and productive resources</p>	<p>Awareness campaigns on the rights of the LGBTQIAPN+ community and against LGBTphobia</p> <p>Elaborating, in partnership with LGBTQIAPN+ movements, KM products that can support awareness-raising campaigns and capacity building in rural schools and communities regarding LGBTQIAPN+ rights</p> <p>Promotion of consultations and collaboration with LGBTQIAPN+ rural movements, such as MST's LGBT Working Group</p> <p>Implementation of LEAD's Diversity, Equity, and Inclusion Strategy (2021)</p> <p>Diagnosis of the socio-economic and political barriers to inclusion for this group in the state of Ceará, particularly in rural areas</p> <p>SDA will be responsible for Environmental Registry (CAR). Elaborating a strategy and action plan for LGBTQIAPN+ inclusion</p>

55. The **Institute of Research and Economic Strategy of Ceará (IPECE)** is responsible for preparing studies, surveys and socio-economic and geographical studies that inform the development of the state's public policies. In PPF2, IPECE will support the preparation of relevant studies on the area of operation and its populations, as well as supporting the Impact Assessment study.
56. The **School of Social Gastronomy** is a training and research center focused on gastronomy and food culture that will implement some of the nutrition activities of PPF II. The school will provide various theoretical and practical training modules on food culture and healthy diet habits, food transformation and cooking. The SSG is part of the Secretary of Culture (Secult Ceará) managed by the Institute Dragão do Mar (IDM) and located in Fortaleza.

57. The **Public Health School of Ceará** is a teaching and research center that will contribute to the project providing training in health and nutrition to vulnerable households.
58. **Civil society organizations** will be important partners in the implementation of PPF II activities, in particular by carrying out ATER activities.
59. **Municipal governments** will be mobilized to participate in the project's actions, contributing to the Territorial Plans and actions within their remit, as well as strengthening the governance necessary for the sustainability of the project's actions.

60. **Key national policies, strategies, and regulatory frameworks relevant to the Project**

- Brazil is a signatory to the UNCBD, the UNCCD^[64] and the UNFCCC^[65]. In Brazil's **National Biodiversity and Action Plan (NBSAP)**, the targets for ecosystem restoration are: 4) promote sustainable production and consumption to reduce pressure on natural resources; 5) minimize the loss of native habitat; 11) increase protected areas; 14) restore and protect ecosystems that provide essential services to traditional communities; and 15) restore at least 15% of degraded ecosystems to mitigate and adapt to climate change and combat desertification. Brazil's **National Adaptation Plan (NAP)** recognizes the climate vulnerability of the Caatinga and its local population due to the projected increase in average temperatures and reduction in average rainfall, exacerbating desertification, droughts, and loss of productivity. Regarding its **Nationally Determined Contributions (NDCs)**, Brazil has committed to reducing GHG emissions by 37% below 2005 levels in 2025 and by 50% below 2005 levels in 2030^[66]. Brazil's commitments also include a long-term goal to achieve climate neutrality by 2050^[67]. Brazil's LDN (Land Degradation Neutrality) targets by 2030 are to restore 12 million hectares of forests, 15 million hectares of degraded pastures and increase integrated crop-livestock-forestry systems (ICLFS) by 5 million hectares.
- The **National Environmental Policy** (PNMA - Law No. 6.938, of August 31, 1981) establishes Environmental Impact Assessment (EIA) as one of its instruments, through which it seeks to identify, mitigate, and evaluate the possible socio-environmental impacts of an activity or project.
- The **Law on the Protection of Native Vegetation (Forest Code)** establishes general rules on where and how native vegetation can be exploited and which areas must be preserved. It includes mechanisms for conserving and restoring native vegetation on private land and establishes two types of preservation areas - the Legal Reserve (RL) and the Permanent Preservation Area (APP)^[68]. [5]
- The **National Policy for the Recovery of Native Vegetation (PROVEG)** was created in 2017 to coordinate and strengthen public policies, financial incentives, markets, and good agricultural practices to promote the recovery of native vegetation in fallow and degraded areas with low productivity. CONAVEG is responsible for putting the plan into practice^[69]. [6]
- The **National Plan for the Recovery of Native Vegetation (PLANAVEG)** is a key mechanism of PROVEG, whose aim is to expand and strengthen public policies, financial incentives, markets, recovery technologies, sustainable agricultural practices, and other measures necessary for the recovery of native vegetation, mainly in APP and RL areas, but also in degraded areas with low agricultural productivity^[70].
- The **National Policy for the Territorial and Environmental Management of Indigenous Lands (PNGATI)**^[71] has the general objective of guaranteeing and promoting the protection, recovery, conservation and sustainable use of the natural resources of indigenous lands and territories, ensuring the integrity of indigenous heritage, the improvement of quality of life and the full conditions for the physical and cultural reproduction of current and future generations of indigenous peoples, respecting their socio-cultural autonomy.
- The main objective of the **National Policy for the Sustainable Development of Traditional Peoples and Communities**^[72] (PNPCT) is to promote the sustainable development of **traditional peoples and communities, with an emphasis on recognizing, strengthening, and guaranteeing their territorial, social, environmental, economic, and cultural rights, while respecting and valuing their identity, forms of organization and institutions.**
- The **International Labor Organization (ILO) Convention 169 on Indigenous and Tribal Peoples** establishes free, prior, and informed consultation as a right of peoples and as a principle of their political relationship with national states. Article 6 defines the principles of the consultation process^[73].
- The **Statute of the Child and Adolescent, Federal Law No. 8,069 of July 13, 1990** which regulates Article 227 of the Federal Constitution, defines children and adolescents as subjects of rights, in a peculiar condition of development, who demand full and priority protection from the family, society and the state.
- The **Consolidation of Labor Laws (CLT)** is the legal framework that establishes the regulatory standards for individual and collective labor relations in Brazil. It was approved by Decree-Law No. 5,452 in 1943 and has since been updated and reformed. Articles 402 and 441 include all the rules for hiring teenagers, including guidelines for taking on apprentices. For those under the age of 14, in accordance with the Federal Constitution, it prohibits any form of work.
- The **Maria da Penha Law** (Law 11.340/2006) creates mechanisms to prevent and curb domestic and family violence against women in its 46 articles^[74]. This rule is in line with the Federal Constitution (art. 226, § 8) and the international treaties ratified by the Brazilian State (Convention of Belém do Pará, Pact of São José da Costa Rica, American Declaration of the Rights and Duties of Man and Convention on the Elimination of All Forms of Discrimination against Women^[75]).
- **Law No. 13.718/2018 of the Penal Code** typifies the crimes of sexual harassment and disclosure of a rape scene, makes the nature of criminal prosecution of crimes against sexual freedom and sexual crimes against the vulnerable unconditional, establishes causes of increased punishment for these crimes and defines collective rape and corrective rape as causes of increased punishment.
- Brazil has several policies and programs to promote low-carbon agriculture and the internalization of biodiversity in rural areas. Examples of this are the **ABC Program** and credit instruments such as **PRONAF ABC, PRONAF ABC+Bioeconomy, PRONAF ABC+Agroecology** and **PRONAF ABC+Forest**, run by the BNDES in partnership with other banks such as Banco do Brasil (BB), Banco do Nordeste (BNB) and Banco da Amazônia (BASA)^[76].
- **Decree No. 33.860, of December 21, 2020.** Establishes the Environmental Regularization Program for Rural Properties in

the Ceará State. Among the obligations is the registration of all rural properties in the state in the Rural Environmental Registry (CAR). The CAR is a nationwide electronic public registry with the competent environmental agency, within the scope of the National Environmental Information System - SINIMA, which is compulsory for all rural properties, with the aim of integrating environmental information on rural properties and possessions, forming a database for environmental and economic planning, as well as monitoring and combating deforestation. Registration in the CAR, which is compulsory and for an indefinite period for all rural properties and possessions, is declaratory and permanent in nature, and will contain information about the rural property.

- **Law 15.844/2010 - Establishes the State Water Resources Policy.** It establishes the granting of rights to use water resources and to carry out water interference works and/or services. The granting of the right to use water resources is an administrative act in which the use of a given water resource is granted under the terms and conditions expressed in the respective act, without prejudice to the other forms of environmental licensing carried out by the competent institutions. The grant must be requested by any user who uses raw water from rivers, lakes, reservoirs, canals, water mains, wells, and springs, for any production process including human supply, as well as other uses or interferences that alter the regime, quantity, or quality of the water in a body of water.
- **Law No. 18.436/2023.** Provides for simplified environmental procedures for the implementation and operation of micro-sized enterprises and/or activities with low polluting and degrading potential.
- **Law No. 18.427/2023.** Establishes the Ceará State Policy on Payment for Environmental Services, with the aim of promoting, encouraging, and fostering the preservation, conservation, maintenance and increase of environmental services in the Ceará State.
- **Law No. 16.149/2016.** Institutes the State Policy on Climate Change - PEMC, and establishes its principles, objectives, guidelines, instruments, and institutions involved.

4. Environmental and social category

61. With regard to environmental risks, there are moderate risks related to: i) the possibility of increased encounters with wildlife as a result of the ecological restoration processes, which may create more favorable foraging niches for these species; ii) the possibility of introducing invasive alien species; iii) the acquisition of natural resources as inputs for the agroforestry activities supported by the Project; iv) the release of pollutants to the environment; v) the potential overexploitation of water resources as a result of the project's investments in the water sector; vi) the acquisition of agrochemicals (pesticides and fertilizers) - although the agroecological approach proposed by the Project does not require this type of input, its use is quite common and part of the production strategies usually used by farmers; vii) the engagement in forestry areas and viii) support for sheep and goat farming, which can contribute to the common problem of overgrazing. The project will develop specific Environmental, Social and Climate Management Plans (ESCMPs) to manage these risks, and will include measures to avoid the purchase of inputs that do not comply with standards relating to sustainably sourced natural resources and harmful agrochemicals. The plans will also provide guidance on the identification and assessment of all natural resources in the project areas, such as the existence of degraded areas and water sources that can be restored. All the measures for managing risks and impacts are well known and should not pose a challenge for state institutions, which have good experience in applying social and environmental safeguards in projects with external funding, as well as having a comprehensive legal and institutional framework for dealing with all the issues mentioned above.
62. With regard to social risks, there are moderate risks related to the presence of indigenous peoples and traditional communities with their own knowledge and ways of life, potential labour related issues A Free, Prior and Informed Consent Implementation Plan (FPIC Implementation Plan) to implement and strengthen FPIC processes, an Indigenous Peoples Plan Framework, as well as processes for the effective participation of this target group in the planning and execution of Project activities were developed during design. The Project will also develop a Gender, Youth, Social Inclusion and Nutrition Strategy, which will contribute to mitigating any risks related to the inclusion, benefit, and empowerment of the target groups and to guaranteeing their quality participation and empowerment.

5. Climate risk category

63. **The Project's climate risk category is substantial.** The factors that justify this assessment are: i) the exposure of the target population to natural hazards, notably the temporal and spatial variability of rainfall, high temperatures and droughts that can adversely affect productive activities and biodiversity; ii) the level of poverty of the target population and their dependence on agriculture for their food security and income; iii) the relative lack of access of the target population to instruments, resources and public policies aimed at strengthening their capacity to adapt to climate change. The Project will prepare a Targeted Adaptation Assessment to identify in detail the possible impacts of climate variability on relevant Project activities and propose measures for their management and mitigation.

6. Recommendations for project design and implementation

64. **Social recommendations:**

- A specialist in Gender, a specialist in Youth and a specialist in Nutrition should be part of the PMU team and should guide, lead, and monitor compliance with social safeguards.
- The PMU will also include a specialist on Social, Environmental and Climate Safeguards.
- The specialists on Gender, Youth and Nutrition should lead the development of a strategy and action plan for the inclusion of young people, gender equity, assistance to traditional communities and improved nutrition in the project's actions and activities.
- To ensure that the social safeguards are met, the social inclusion specialists (Gender, Youth and Nutrition) must regularly sensitize and train the Project team and the Technical Assistance teams on gender, youth, traditional peoples and communities and nutrition.
- Project information, including on the grievance and redress mechanism, should be presented in an accessible and culturally appropriate manner, giving due attention to the specific needs of community groups that may be affected by Project implementation (such as literacy, gender, language diversity or accessibility of technical information or connectivity).
- The Technical Assistance team should guide families through the basics of nutrition, enriched and diversified diets, good food safety practices, sanitation, and hygiene to improve the quality of families' diets.
- Develop a robust M&E system with data disaggregated by gender, age and traditional peoples and communities to monitor the socio-economic empowerment of target groups, as well as frequently monitoring nutritional indicators.
- The project must ensure that interventions address the gaps that hinder the access of women, young people and traditional peoples and communities (PCTs) to the inputs, technologies, and tools necessary for productive inclusion.
- In the communities of traditional peoples located in the target territories, the Free, Prior and Informed Consent (FPIC) procedure will be applied to obtain their acceptance and willingness to participate in the Project.
- The project will follow national and international working standards.

65. **Environmental and climate recommendations:**

- It is recommended that the PMU retains an environmental/safeguards specialist throughout the project, who should guide, lead, and monitor compliance with environmental and climate safeguards.
- This specialist should lead the development of a strategy and action plan to ensure environmental and climate safeguards are complied with. The environmental specialist must regularly sensitize and train the Project team and the Technical Assistance teams on the relevant topics (biodiversity, sustainable management of natural resources, climate change and the appropriate use of agrochemicals).
- The Technical Assistance team should guide families through the basics of landscape restoration and agroecological production practices, such as crop diversification, agroforestry, integrated pest, and disease management, etc.

66. It is recommended that a relational and georeferenced database of project interventions be created within the PMU for the purposes of monitoring and evaluating their environmental and climate impacts. It is recommended that the Local Regional Development Plans provided for in the Project spatialize their interventions in this database in order to facilitate the monitoring and progress of actions. It is recommended that this database be interoperable with the Rural Environmental Registry database.

7. Further studies needed

67. Based on the moderate environmental and social risk category and the substantial climate risk category of the Project, the following SECAP studies were prepared during the Project design phase: i) Environmental, Social and Climate Management Plan (ESCMP); (ii) Free, Prior and Informed Consent Implementation Plan; ; iii) Targeted Adaptation Assessment ;iv) an Indigenous Peoples Plan; v) Stakeholder Engagement Plan (SEP); and vi) Grievance Redress Mechanism (GRM).

8. Monitoring and evaluation

68. Environmental and climate indicators:

- CI1.3 People accessing technologies that sequester carbon or reduce GHG emissions (disaggregated by gender and youth).
- CI 3.2.1 Tons of greenhouse gas emissions (tCO₂e) avoided and/or sequestered.
- CI 3.2.2 Households reporting the adoption of environmentally sustainable and climate-resilient technologies and practices.
- Environmental and climate education courses with a gender focus in rural schools.

69. Indicators of gender, youth and traditional peoples and communities:

- Outreach indicator: People receiving services promoted or supported by the project (disaggregated by gender, youth, and traditional communities).
- CI 1.1.4 People trained in production practices and/or technologies (disaggregated by gender and youth).
- CI 2.2.1 People with new jobs/employment opportunities (disaggregated by gender and youth).
- IE 2.1 People demonstrating an improvement in empowerment (disaggregated by gender and youth).

70. Nutritional indicators:

- CI 1.1.8 Households provided with targeted support to improve their nutrition (disaggregated by gender, youth, and traditional communities).
- CI 1.2.8 Women reporting minimum dietary diversity (MDD-W)

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ESCMP Matrix

114. The matrix is included in the standalone ESCMP (see annexes).

Footnotes

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Environmental and Social Safeguards Classification: Moderate

Environmental and Social Safeguards				
Biodiversity conservation	Yes/No	Likelihood	Consequence	Risk Rating
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	No			Low
1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?	No			Low
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?	Yes	Possible	Moderate Conflict leads to some loss of livelihood or threat to wildlife, but this is not catastrophic	Moderate
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	No			Low
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?	No			Low
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	Yes	Unlikely	Moderate High potential for invasive alien species of flora and fauna to be introduced, but strict controls likely to be adequate.	Moderate
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Yes	Possible	Moderate Project requires procurement of natural resources through primary suppliers, and resource extraction is tightly regulated	Moderate
Resource Efficiency and Pollution Prevention	Yes/No	Likelihood	Consequence	Risk Rating
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Likely	Minor Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.	Moderate
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc)	No			Low

Environmental and Social Safeguards				
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	Yes	Likely	Minor Only a small component of the project is focused on forestry, and this aspect is well regulated.	Moderate
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	No			Low
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?	Yes	Unlikely	Moderate The project needs a considerable amount of groundwater or surface water. This will require a minor extension of existing sources. It includes construction of large-scale irrigation schemes rehabilitation/development – below 300 ha per scheme	Moderate
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Possible	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Moderate
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Yes	Unlikely	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Moderate
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No			Low
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Yes	Possible	Moderate Intensive/extensive livestock/aquaculture systems are in place, but these are only one component of the project.	Moderate
Cultural Heritage	Yes/No	Likelihood	Consequence	Risk Rating
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	No			Low
3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	No			Low

Environmental and Social Safeguards				
3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No			Low
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No			Low
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
indigenous peoples	Yes/No	Likelihood	Consequence	Risk Rating
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	Yes	Possible	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Moderate
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	Yes	Possible	Minor The project is sited in an area that was previously used by indigenous people, but no claim has been made on the land.	Moderate
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?	No			Low
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No			Low
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No			Low
Labour and Working Conditions	Yes/No	Likelihood	Consequence	Risk Rating
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	Yes	Possible	Minor The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated, and is part of international value chains that are subject to regular environmental and social auditing.	Moderate

Environmental and Social Safeguards				
5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)	No			Low
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	Yes	Possible	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Moderate
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)	No			Low
Community Health, Safety and Security	Yes/No	Likelihood	Consequence	Risk Rating
6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	No			Low
6.2 Could the project lead to unintended negative impacts on nutrition?	No			Low
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No			Low
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	No			Low
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No			Low
6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No			Low
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	No			Low
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	No			Low
6.9 Could the project lead to an influx of project workers?	No			Low
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
Physical and economic resettlement	Yes/No	Likelihood	Consequence	Risk Rating

Environmental and Social Safeguards				
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low
7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No			Low
7.3 Could the project present a risk of forced evictions?	No			Low
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No			Low
Financial intermediaries and direct investments	Yes/No	Likelihood	Consequence	Risk Rating
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No			Low
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No			Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	No, Yes, TBD
River flood	Yes
Costal Flood	Yes
Urban Flood	Yes
Landslide	Yes
Cyclone	No
Water Scarcity (agricultural droughts and/or dry spells)	Yes
Extreme Heat	Yes
Wildfires	Yes
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	No, Yes, TBD
Change in temperature (increase or decrease)	Yes
Change in rainfall (increase or decrease)	No
Climate variability (larger or smaller)	No
Intensity and frequency of extreme events (larger or smaller)	Yes
Is the project expected to have an impact on climate change (i.e. contribute to greenhouse gas emissions)?	No, Yes, TBD
Is the project expected to be a significant emitter of greenhouse gases?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	No, Yes, TBD
Low-lying areas (valleys, coastal zones, and small islands)	Yes
Very warm areas (subtropical)	Yes
Tropical areas (rainforests)	No
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	No
River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	No, Yes, TBD
Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	Yes
Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	No
Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	Yes
Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	No, Yes, TBD
Is conflict exacerbating the population's sensitivity to weather related hazards?	Yes
Is population displacement being exacerbated by climate change impacts?	Yes

Are diseases (e.g. COVID-19, malaria, cholera) increasing the population's vulnerability and affecting their capacity to address potential weather-related hazards?	No
Is the income of the target population predominately coming from agriculture?	Yes
Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
Is the Human Development Index (HDI) equal to or below 0.6?	No
Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	Yes
Step 4: Adaptive capacity and climate resilience	
What are key adaptive capacities in the areas of project intervention?	No, Yes, TBD
Is the country well ranked in the Disaster risk reduction progress score?	Yes
Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	Yes
Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	No
Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	No
Is the target community carrying out (using their own means) agricultural adaptation?	Yes
Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	Yes
Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Project No. 2000004317

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Latin America and the Caribbean
Programme Management Department

ANNEX 6: FIRST ANNUAL WORK PLAN AND BUDGET (AWPB)

A. Activities that will be carried out during the first year of implementation, by component.

This Annual Work Plan and Budget (AWPB) presents the methodological strategies and the main activities defined for the first 12 months of the Paulo Freire II Project (PPF II), so that the Project can begin its activities.

The planning in this AWPB presents the necessary steps to ensure that the Project has the technical conditions to begin field activities. For example, it is planned to hire the professionals who will make up the Project Management Unit (PMU). In addition, it is planned to establish the physical infrastructure of the PMU and to purchase office equipment and vehicles, ensuring that the team is fully equipped to carry out their tasks effectively.

Specifically, the activities planned for the 1st year are broken down by component as follows:

Component 1: Rural development with environmental sustainability based on agroecology

It aims to implement investments in family farming for development, diversification, adaptation of production capacity and market access, with activities carried out to promote and encourage the adoption of agroecological practices, favoring the conservation and preservation of natural resources.

At a territorial level, the Project will work with Local Rural Development Plans (PDRL), with investments in productive development and environmental sustainability. These PDRL will be elaborated and implemented in collaboration with producer families and with the support of ATER. The Project will also organize training events to raise awareness of public policies at state and federal level. These events are designed to promote access to these public policies, thereby facilitating access to credit and trading in institutional markets. In addition to these activities, PPF II will guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR).

At the level of family farming organizations, investments will be made in processing units, including assistance via Specialized Technical Assistance (STA) to ensure improved business management, marketing, and sustainability. Cross-cutting themes such as gender, youth, PCT, food security and nutrition will be addressed with the families.

Considering that the activities of this component depend on the preparation of the PDRLs and the presence of ATER in the field, in the first year it is planned to begin land regularization activities that can be started as soon as the communities are selected, with the support of IDACE.

Component 2: Access to water, sanitation, and social technologies

The aim of this component is to make investments in the areas of water, household sewage and renewable energy at family or community level. Whether for community or family use, the investments will guarantee consistent and high-quality access to water for human consumption or agricultural production, as well as reducing soil and water contamination with waste produced in family units. Efficient water use practices and technologies will be systematically implemented to adapt to climate change.

Technical assistance provided for families and communities will facilitate knowledge sharing on systems/equipment maintenance, alongside promoting awareness of best practices for efficient water use in domestic, hygiene and sanitation contexts, to maximize the impact on nutrition and community health.

To foster innovative solutions, the component will finance the dissemination of sustainable innovations developed under subcomponent 3.3.

The construction of cisterns for production and human consumption is planned for the first year. These activities can begin as soon as the communities have been selected, to address the most critical and priority situations. The communities that will receive water supply through simplified systems will be identified and selected.

C3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

This component will be financed by a grant (100% AECID donation resources) and will aim to promote capacity building among family farmers and ATER teams, foster environmental education to ensure food security and nutrition in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semi-arid environment. Replicable pilot projects will be developed and exchanges organized, following the model of South-South and Triangular Cooperation (SSTC). It also aims to provide support to the PMU to strengthen the state's institutional capacity to implement PPF II and, in particular, the activities financed by Component 3.

For the first year, training activities are planned for the ATER teams to prepare them for intervention in the field. These trainings will use, among other materials, the KM documents produced in PPF I and the documents produced by various KM programs such as AKSAAM, DAKI and Semear Internacional.

Project Management, M&E, Knowledge Management and SSTC

It will be responsible for carrying out all the necessary project management activities to ensure efficient implementation through a Project Management Unit (PMU), under the responsibility of the Secretariat for Agrarian Development (SDA). The M&E system will support the planning, monitoring and evaluation of results, and Knowledge Management and South-South and Triangular Cooperation (SSTC) will enable the preparation of materials/systematizations on PPF II good practices, as well as allowing the exchange of knowledge through exchanges in the state of Ceará, the semi-arid region of Brazil and other countries.

For the first year, the following activities are planned: i) Acquisition of equipment to structure the PMU and local offices (computers, audiovisual equipment, etc.), as well as the refurbishment of the PMU in Fortaleza ii) Acquisition of vehicles, iii) Hiring and remuneration of the PMU team and the Project field team, coordination, specialists, advisors, managers, iv) Operation of the Project unit, offices, daily allowance (per diems) and tickets, v) Construction of the M&E system, study for the selection of communities to be carried out by IPECE and the baseline study. The Free Prior and Informed Consent study will also be carried out.

B. Investments from the first Annual Operating Plan

The AWPB is designed to execute a total amount of EUR 5,760,380, of which: EUR 3,750,880 in AECID loan resources, EUR 410,000 in AECID donation resources, EUR 1,220,000 in resources from the Government of Ceará, and EUR 379,00 in counterpart funding from the beneficiaries.

The table below shows the amounts that will be invested per component and source of funds.

Table 1 - Resources invested by component, according to source of funds

	Fida		AECID		AECID_Donación		Usuarios		Gob_de Ceará		Total	
	Euros	%	Euros	%	Euros	%	Euros	%	Euros	%	Euros	%
C1 Desenvolvimento rural com sustentabilidade ambiental de base agroecológica	- €	0%	15,000 €	100%	- €	0%	- €	0%	- €	0%	15,000 €	100%
C2 Acesso à água, saneamento e tecnologias sociais	- €	0%	1,518,000 €	80%	- €	0%	379,500 €	20%	- €	0%	1,897,500 €	100%
C3 Gestão do Conhecimento e Cooperação para a adaptação às mudanças climáticas e combate à desertificação no Semiárido	- €	0%	- €	0%	410,000 €	100%	- €	0%	- €	0%	410,000 €	100%
C4 Gestão do Projeto, Monitoramento e Avaliação (M&A), Gestão do Conhecimento e Cooperação Sul-Sul e Triangular	- €	0%	2,217,880 €	65%	- €	0%	- €	0%	1,220,000 €	35%	3,437,880 €	100%
Total	- €	0%	3,750,880 €	65%	410,000 €	7%	379,500 €	7%	1,220,000 €	21%	5,760,380 €	100%

1. The resources for the first year are distributed among the components, with the main focus on project management, i.e., aspects related to project management and its recurring costs for implementation, with the aim of structuring the project team and preparing for the start of activities with the beneficiaries. In component 1, it is planned to start some activities related to environmental and land regularization. Component 2 is expected to implement cisterns for production and human consumption, while component 3 will begin the first training activities for the technical teams.

C. Physical and financial targets for the first AWPB

2. In the following chapters, the resources that will be invested will be presented in detail, broken down by component, subcomponent and activities, and according to the source of the resources.

D. Investment by Component

a. Component 1

Table 2 - Resources invested in component 1, and by subcomponent and activities, according to the origin of the resources.

POA 12 Meses	Unidades	Q Ano 1	Valor Unitario	POA				
				Fida	AECID	AECID_Donación	Usuarios	Gob_de Ceara
1 Desenvolvimento rural com sustentabilidade ambiental de base agroecológica								
1.1 A. Fortalecimento da Agricultura Familiar e Superação da Fome e Mitigação dos efeitos da Pobreza e Assessoria Técnica (ATER)								
1.1.1 1. Planos de Desenvolvimento Rural Local (PDRL)								
1.1.1.1 PDRL productivo familiar	Planos	- \$	135,000	- €	- €	- €	- €	- €
1.1.1.2 PDRL ambiental territorial	Planos	- \$	9,000	- €	- €	- €	- €	- €
1.1.2 2. Assessoria Técnica (ATER) para Desenvolvimento de Agricultura Agorecológica e Sustentável /a	Familia	- \$	750	- €	- €	- €	- €	- €
1.1.3 3. Capacitação de Agricultura para acesso às Políticas Públicas /b	Eventos	- \$	1,500	- €	- €	- €	- €	- €
1.1.4 4. Regularização Fundiária e Ambiental				- €	- €	- €	- €	- €
1.1.4.1 Regularização fundiária	Familia	50 \$	240	- €	12,000.00 €	- €	- €	- €
1.1.4.2 Regularização ambiental (CAR)	Familia	50 \$	60	- €	3,000.00 €	- €	- €	- €
1.2 B. Fortalecimento da Comercialização e do Beneficiamento de Productos da Agricultura Familiar								
1.2.1 1. Planos de Negócio para fortalecimento do beneficiamento e da comercialização (médio/grande porte)	Plano	- \$	120,000	- €	- €	- €	- €	- €
1.2.2 2. Consultoria Técnica Especializada (CTE) para o fortalecimento do beneficiamento e comercialização (medio/g)	CTE PN	- \$	30,000	- €	- €	- €	- €	- €
1.2.3 3. Planos de Negócio para fortalecimento do beneficiamento e da comercialização (pequeno porte)	planos	- \$	35,000	- €	- €	- €	- €	- €
1.2.4 4. Consultoria Técnica Especializada (CTE) para o fortalecimento do beneficiamento e comercialização pequeno	CTE PN	- \$	10,000	- €	- €	- €	- €	- €
1.3 C. Genero, Juventude, Soberania alimentar e nutricional								
1.3.1 1. Plano de Genero elaborado e implementado	Plano	- \$	2,500	- €	- €	- €	- €	- €
1.3.2 2. Plano de Juventude elaborado e implementado	Plano	- \$	1,300	- €	- €	- €	- €	- €
1.3.3 3. Plano de Nutrição elaborado e implementado	Plano	- \$	1,300	- €	- €	- €	- €	- €
Total C1				- €	15,000.00 €	- €	- €	- €

b. Component 2

Table 3 - Resources invested in component 2, and by subcomponent and activities, according to the origin of the resources.

POA 12 Meses	Unidades	Q Ano 1	Valor Unitario	Fida	AECID	AECID_Donación	Usuarios	Gob_de Ceara
2.1 A. Acesso à água e Saneamento Básico Rural Comunitário								
2.1.1 1. Acesso à água Rural Comunitário- Implantação /a	Familia	- \$	3,300	- €	- €	- €	- €	- €
2.1.2 2. Acesso à água Rural Comunitário- Reabilitação, melhorias e ampliação	Familia	- \$	1,300	- €	- €	- €	- €	- €
2.1.3 3. Reuso de água comunitário para produção /b	Familia	- \$	4,000	- €	- €	- €	- €	- €
2.1.4 4. Ações de Reciclagem de Resíduos Sólidos	Ações	- \$	4,000	- €	- €	- €	- €	- €
2.2 B. Tecnologia Social de acesso à água e Apoio à Produção								
2.2.1 1. Cisternas para consumo humano	Cisternas	500 \$	1,220	- €	488,000.00 €	- €	122,000.00 €	- €
2.2.2 2. Cisternas para produção agropecuária	Cisternas (PA)	250 \$	5,150	- €	1,030,000.00 €	- €	257,500.00 €	- €
2.2.3 3. Reuso de água familiar para produção /c	Sistema	- \$	2,560	- €	- €	- €	- €	- €
2.2.4 4. Módulo sanitário domiciliar completo	Módulo	- \$	4,300	- €	- €	- €	- €	- €
2.2.5 5. Fogão ecoeficiente	Fogão	- \$	360	- €	- €	- €	- €	- €
2.2.6 6. Biodigestor	Biodigestor	- \$	3,680	- €	- €	- €	- €	- €
2.2.7 7. Barreiros trincheras e outros barramentos /d	Barragem	- \$	3,000	- €	- €	- €	- €	- €
2.2.8 8. Inovação (maquinários, ferramentas e etc.) /e	Unidades	- \$	2,000	- €	- €	- €	- €	- €
Total C2				- €	1,518,000.00 €	- €	379,500.00 €	- €

c. Component 3

Table 4 - Resources invested in component 3, and by subcomponent and activities, according to the source of the resources.

				POA				
POA 12 Meses	Unidades	Q Ano 1	Valor Unitario	Fida	AECID	AECID_Donación	Usuarios	Gob_de Ceará
3	Gestão do Conhecimento e Cooperação para a adaptação às mudanças climáticas e combate à desertificação no Semiárido							
3.1	A. Desenvolvimento de capacidades dos agricultores familiares e das equipes de extensão rural (Assistência Técnica, AT)							
3.1.1	1. Assistência técnica (AT) /a	cursos	20 \$ 3,000	- €	- €	60,000.00 €	- €	- €
3.1.2	2. Cursos de capacitação /b	cursos	5 \$ 30,000	- €	- €	150,000.00 €	- €	- €
3.1.3	3. Atividades de intercâmbio de experiências entre agricultores do estado	intercambios	- \$ 10,000	- €	- €	- €	- €	- €
3.2	B. Promoção da educação ambiental e climática com enfoque de genero em escolas rurais							
3.2.1	1. Curso de gestão sustentável de recursos naturais /c	cursos	- 2,000	- €	- €	- €	- €	- €
3.2.2	2. Curso de produção de mudas e reflorestamentos /d	cursos	- 2,000	- €	- €	- €	- €	- €
3.2.3	3. Curso de segurança alimentar e nutricional /e	cursos	- 2,000	- €	- €	- €	- €	- €
3.3	C. Promoção da pesquisa tecnológica e implementação de projetos pilotos							
3.3.1	1. Desenvolvimento de fornos e fogões ecoeficientes	piloto	- 2,000	- €	- €	- €	- €	- €
3.3.2	2. Equipamento de tratamento de água de caminhões-tanque para consumo humano	piloto	- 1,000	- €	- €	- €	- €	- €
3.3.3	3. Utilização de alternativas ao uso de lenha em pequenas unidades de processamento de mandioca /f	piloto	- 5,000	- €	- €	- €	- €	- €
3.3.4	4. Soluções de reciclagem de resíduos sólidos para artesanatos /g	piloto	- 2,000	- €	- €	- €	- €	- €
3.3.5	5. Ferramentas para inclusão digital rural /h	piloto	- 2,000	- €	- €	- €	- €	- €
3.3.6	6. Experimentos e soluções em agricultura bioessalina /i	piloto	- 5,000	- €	- €	- €	- €	- €
3.4	D. Gestão do Conhecimento e cooperação Sul-Sul e Triangular (CSST)							
3.4.1	1. Elaboração de estudos de Gestão de Conhecimento sobre agricultura resiliente às alterações climáticas /j	Estudos	- 20,000	- €	- €	- €	- €	- €
3.4.2	2. Workshops, oficinas, rotas de conhecimento e/ou seminários de intercâmbio	workshops	- 30,000	- €	- €	- €	- €	- €
3.4.3	3. Cooperação Triangular e Sul-Sul /k	projetos	- 50,000	- €	- €	- €	- €	- €
3.5	E. Fortalecimento da UGP para implementação e monitoramento das atividades							
3.5.1	1. Assessoria à Unidade de Gestão de Projetos (UGP) na concepção do plano de aquisições /l	Estudos	1 200,000	- €	- €	200,000.00 €	- €	- €
Total C3				- €	- €	410,000.00 €	- €	- €

d. Project Management, Monitoring and Evaluation, South-South Cooperation and CSST

Table 5 - Resources Invested in Management, by subcomponent and activities, according to the source of the resources.

POA 12 Meses					POA				
	Unidades	Q Ano 1	Valor Unitario	Fida	AECID	AECID_Donación	Usuarios	Gob_de Ceará	
4 Gestão do Projeto, Monitoramento e Avaliação (M&A), Gestão do Conhecimento e Cooperação Sul-Sul e Triangular									
A. Unidade Gestora do Projeto (UGP)									
4.1.1	Adquisição de equipamentos e acessórios de TI	lumpsum	1 250,000 €	- €	- €	- €	- €	250,000.00 €	
4.1.2	Adquisição de equipamentos (moveis)	lumpsum	1 100,000 €	- €	- €	- €	- €	100,000.00 €	
4.1.3	Reforma da UGP	lumpsum	1 800,000 €	- €	800,000.00 €	- €	- €	- €	
4.1.4	Reforma dos escritórios da EMATERCE UGP	Unidade	5 40,000 €	- €	200,000.00 €	- €	- €	- €	
4.1.5	Sistema IDACE	Unidade	1 50,000 €	- €	50,000.00 €	- €	- €	- €	
4.1.6	Veículos /a	veículo	2 120,000 €	- €	- €	- €	- €	240,000.00 €	
4.1.7	Cursos para aprimorar/atualizar conhecimentos da equipe (M&A, Adquisições, Financeiro, etc)	cursos	3 10,000 €	- €	- €	- €	- €	30,000.00 €	
4.1.8	Outros custos operacionais	lapsun	1 363,000 €	- €	363,000.00 €	- €	- €	- €	
B. Monitoramento e Avaliação (M&A), Gestão do Conhecimento e CSST									
4.2.1	Sistema de Gestão (PDRL e outras atividades) e M&A	estudio	1 200,000 €	- €	200,000.00 €	- €	- €	- €	
4.2.2	Estudo de Avaliação de impacto	estudio	1 200,000 €	- €	200,000.00 €	- €	- €	- €	
4.2.3	Estudos avaliativos de resultados dos temas prioritarios /b	estudio	- 30,000 €	- €	- €	- €	- €	- €	
4.2.4	Estudo de identificação e priorização das comunidades	estudio	1 150,000 €	- €	150,000.00 €	- €	- €	- €	
4.2.5	Consentimento Livre, Prévio e Informado (CLPI)	estudio	1 20,256 €	- €	20,256.00 €	- €	- €	- €	
4.2.6	Produtos de Gestão do conhecimento	estudio	- 10,000 €	- €	- €	- €	- €	- €	
4.2.7	Intercâmbios (Cooperação Sul-Sul e Triangular)	intercambios	- 100,000 €	- €	- €	- €	- €	- €	
A. Custos Operacionais									
4.3.1	Diárias Equipe	euro/diária	12 2,500.00 €	- €	30,000.00 €	- €	- €	- €	
4.3.2	Passagens-Equipe	passagens	12 1,000.00 €	- €	12,000.00 €	- €	- €	- €	
4.3.3	Locação de veículos utilitários /c	mes	10 15,000.00 €	- €	150,000.00 €	- €	- €	- €	
4.3.4	Custo da Gerenciadora da equipe /d	euros/ano	1 42,624.00 €	- €	42,624.00 €	- €	- €	- €	
B. Salários									
4.4.1	Coordenadoria do projeto	Remuneração anual	1 30,000.00 €	- €	- €	- €	- €	30,000.00 €	
4.4.2	Coordenadoria técnica do projeto	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.3	Gerencia no Componente 1	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.4	Gerencia no Componente 2	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.5	Gerencia no Componente 3	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.6	Gerencia financeira	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.7	Gerencia de aquisições	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.8	Gerencia de M&A	Remuneração anual	1 24,000.00 €	- €	- €	- €	- €	24,000.00 €	
4.4.9	Especialista no componente 1	Remuneração anual	1 19,200.00 €	- €	- €	- €	- €	19,200.00 €	
4.4.10	Especialista no componente 2 (saneamento)	Remuneração anual	1 19,200.00 €	- €	- €	- €	- €	19,200.00 €	
4.4.11	Especialista no componente 3	Remuneração anual	1 19,200.00 €	- €	- €	- €	- €	19,200.00 €	
4.4.12	Especialista financeiro pleno	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.13	Especialista em aquisições	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.14	Especialista em genero	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.15	Especialista em juventude	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.16	Especialista em nutrição	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.17	Especialista em gestão do conhecimento, comunicação e CSST	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.18	Especialista em Salvaguardas (Sociais, Ambientais e Climática)	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.19	Especialista em M&A	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.20	Especialista em Gestão administrativa	Remuneração anual	1 18,000.00 €	- €	- €	- €	- €	18,000.00 €	
4.4.21	Técnicos de campo I (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.22	Técnicos de campo II (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.23	Técnicos de campo III (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.24	Técnicos de campo IV (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.25	Técnicos de campo V (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.26	Técnicos de campo VI (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.27	Técnicos de campo VII (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.28	Técnicos de campo VIII (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.29	Técnicos de campo IX (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.30	Técnicos de campo X (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.31	Técnicos de campo XI (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.32	Técnicos de campo XII (escritorio regionais do projeto)	Remuneração anual	1 9,600.00 €	- €	- €	- €	- €	9,600.00 €	
4.4.33	Apois administrativos e financeiro /e	Remuneração anual	1 67,200.00 €	- €	- €	- €	- €	67,200.00 €	
Total C4				- €	2,217,880 €	- €	- €	1,220,000 €	

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 7: Procurement Plan for first 18 months

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Procurement Plan SUMMARY

Country:	Brazil			
Project Name:	PAULO FREIRE 2			
Project ID:				
Version	1.0			
Version Date	11-Apr-24			
Prepared by:				
Approved by:				
Procurement Category	Plan		Actual	
Currency	EUR	R\$	EUR	R\$
Goods	-	-	-	-
Works	-	-	5 016 836.00	-
Consulting Services	-	-	2 763 000.00	-
Non-Consulting Services	-	-	2 004 000.00	-
Grants	-	-	-	-
TOTAL	-	-	9 783 836.00	-

The threshold tables below are based on the new LTB Template 2020.
Please fill in the fields that are applicable based on the provisions in the LTB for the project.

Prior Review Thresholds					
Category	Goods and goods-related Non-Consulting Services	Works and works-related Non-Consulting Services	Consulting Services and related Non-Consulting Services and/or MoU/Agreements	Individual Consultants	Decisions concerning Abnormally Low Bids shall be subject to the No Objection of IFAD:
Threshold	>= EUR\$70.000	>= EUR\$150.000	>= EUR\$60.000	>= EUR\$30.000	Only for procurement activities subject to prior review OR For all procurement activities

All Direct Contracting and Single-Source Procurements are **Prior Review** (in alignment with IFAD Procurement Handbook), or based on the thresholds stipulated in the LTB

The exchange rate at time of submission will be used for reviews.

Procurement Method Thresholds						
	CQS	QBS/LCS/FBS	QCBS	Shortlisting	SSS - Firms	SSS - Individuals
Consulting Services and related Non-Consulting Services	<= EUR70,000.00	< EUR\$150,000.00	>= EUR\$150,000.00	>= EUR\$150,000.00	<= EUR\$70.00 (subject to prior review. Justification required if above threshold)	<= EUR\$70.00 (or with a contract duration of 3 months or less; subject to prior review)
	Direct Contracting	Shopping	NCB	ICB	Other Procurement Methods or Arrangements	
Goods and goods-related Non-Consulting Services	>= US\$ 0.00 (subject to prior review. Justification required if above threshold)	<= EUR\$100,000.00	< EUR\$200,000.00	>= EUR\$200,000.00	Force Account	Not allowed
Works and works-related Non-Consulting Services	>= US\$ 0.00 (subject to prior review. Justification required if above threshold)	<= EUR\$250,000.00	< EUR\$1,000,000.00	< EUR\$1,000,000.00	Community Participation	Allowed

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 8: Project Implementation Manual (PIM)

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

ANNEX 8: PROJECT IMPLEMENTATION MANUAL (PIM)

Federative Republic of Brazil

Ceará State Government

Capacity Building Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty (Paulo Freire Project - Phase II)

Project ID: 2000004317

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ABBREVIATIONS AND ACRONYMS

ABC - Brazilian Cooperation Agency

ABNT - Brazilian Association of Technical Standards

AECID - Spanish Agency for International Development Cooperation

AFS - Agroforestry System

APP - Permanent Preservation Area

ATER - Technical Assistance and Rural Extension

AWPB - Annual Work Plan and Budget

BET - Evapotranspiration Basin

BP - Business Plan

CAF - National Family Farming Register

CAGECE - Water and Sewage Company

CAR - Rural Environmental Registry

CEASA - State Supply Center

CEFFAs - Family Training Centers by Alternance

CEL - Special Tenders Committee

COAGUA - Coordination of Water Supply and Sewerage

EGS - School of Social Gastronomy

EMATERCE - Technical Assistance and Rural Extension Company of Ceará

EMBRAPA - Brazilian Agricultural Research Corporation

ESMF - Environmental and Social Management Framework

ESMP - Environmental and social management plan

ESP - School of Public Health

FGTS - Severance Indemnity Fund

FPIC - Free, Prior and Informed Consent

GHG - Greenhouse Gases

IA - Impact Assessment

ICT - Information and Communication Technologies

IDACE - Agrarian Development Institute of Ceará

IFAD - International Fund for Agricultural Development

IICA - Inter-American Institute for Cooperation on Agriculture

INSA - National Semiarid Institute

INSS - National Institute of Social Security

IPECE - Institute of Research and Economic Strategy of Ceará

KM - Knowledge Management

KM&C - Knowledge Management and Communication
LAC - Latin America and the Caribbean
LF - Logical Framework
LR - Legal Reserve
M&E - Monitoring and Evaluation
MPI - Multidimensional Poverty Index
MTR - Mid-Term Review
NBR - Brazilian Standard
NCB - National competitive bidding
NDC - Nationally Determined Contributions
NGO -
NUS - Neglected and Underutilized Species
PAA - Food Acquisition Program
PAP - People affected by the project
PCR - Project Completion Report
PCT - Traditional Peoples and Communities
PD - Development Plan
PDRL - Local Rural Development Plan
PGE - Attorney General's Office
PIM - Project Implementation Manual
PMU - Project Management Units
PNAE - National School Feeding Program
PNSR - National Rural Sanitation Program
PP - Procurement Plan
PPE - Personal Protective Equipment
PPF - Paulo Freire Project
PRONAF - National Program to Strengthen Family Farming
RFQ - Request for Quotation
SAT - Traditional Agricultural Systems
SDA - Secretariat for Agrarian Development
SEA - Sexual exploitation and abuse
SEBRAE - Brazilian Micro and Small Business Support Service
SEMA - Secretariat for the Environment and Climate Change
SES - Sanitary Sewerage System
SIAA - Integrated Water Supply System

SISAR - Integrated Rural Sanitation System
SSTC - South-South and Triangular Cooperation
STA - Specialized Technical Assistance
ToR - Terms of Reference
WSS - Water Supply System

1. INTRODUCTION

The Paulo Freire Project - Phase II (PPF II), officially known as the Capacity Development Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty, is an action financed by IFAD and AECID and executed by the State Government of Ceará, which will also provide counterpart funding.

The strong partnership between IFAD, AECID and the state of Ceará is based on a shared commitment to reducing poverty and increasing food security and nutrition, with special emphasis on the central role played by family farmers in local and national food systems. The PPF I interventions, according to the Impact Assessment (IA), have resulted in a 23% reduction in the Multidimensional Poverty Index (MPI) among the group of beneficiaries, a 60% increase in family production and 70% of the beneficiaries of the Technical Assistance and investment plans have accessed new public policies.

The semiarid region of the state of Ceará is among the poorest in the country and faces high rates of food insecurity and malnutrition, with family farmers and Traditional Peoples and Communities (PCTs)¹ being disproportionately affected. The proportion of the population living in poverty and extreme poverty in the Project area is significantly higher than in the rest of Brazil. While nationally 29.4% of the population is in poverty or extreme poverty, in the Project area, this proportion exceeds 45%. Currently, more than 1.1 million people live in poverty or extreme poverty in the PPF II area. Among indigenous people, poverty reaches 76.6% and among quilombolas, 71.9%. In terms of food insecurity, 2.4 million people were hungry in 2022 (severe food insecurity). The main causes of food insecurity and malnutrition in the Project area are the decline in quality and limited access to water for human consumption and food production, low productivity and limited productive diversification, the low quality of food consumed and the lack of food and nutrition education.

In this sense, PPF II aims to reduce rural poverty, food insecurity and malnutrition in family farming. The Project covers around 80,000 family farmers and will seek to ensure the development and strengthening of sustainable and nutritious local food systems, improving the resilience and income of farming families, contributing to overcoming hunger and mitigating the effects of poverty and extreme poverty. This objective will be achieved through the implementation of three components.

The Project will be implemented by the Secretariat for Agrarian Development (SDA), which will be responsible, through a Project Management Unit (PMU), for implementing the activities, as well as carrying out technical coordination, management of socio-environmental safeguards, financial management, audits, and M&E. The Project's presence in the field will be guaranteed by means of a technical team based in EMATERCE's regional offices.

This Project Implementation Manual (PIM) provides a practical reference tool to guide the implementation of the Project and comply with the contractual clauses between IFAD, AECID and the State of Ceará, on organizational, technical and procedural aspects (eligibility, selection, design, planning and implementation of interventions, monitoring and evaluation, supervision), as well as procurement and rules applicable to the contract, financial and accounting administration and audit procedures. This document should be

¹ Traditional peoples and communities are culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition (item I Art. 3 Decree 6.040 / 2007).

revised throughout the implementation of the Project, whenever necessary, and subsequently submitted for non-objection by IFAD and AECID.

2. PROJECT OVERVIEW

The Paulo Freire Project - Phase II - has the goal of reducing poverty, food insecurity and malnutrition in family farming. The development objective is to increase the sustainability of production systems and the resilience of family farmers.

The Project will cover 74 municipalities in the semiarid region² of the state of Ceará and will directly benefit approximately 62,000 family farmers (around 248,000 people). The total cost of the Project is 137 million euros (approximately US\$ 145 million) over six years of implementation, with co-financing from the Spanish Agency for International Development Cooperation (AECID), counterpart funding from the Ceará State Government and a contribution from the beneficiaries. The Project will ensure the development and strengthening of sustainable and nutritious local food systems, improving the resilience, income, and food security of farming families.

PPF II will be implemented by the SDA of the state of Ceará and is structured into 3 components: 1) Rural development with environmental sustainability based on agroecology; 2) Access to water, sanitation and social technologies; and 3) Knowledge management and South-South and Triangular Cooperation for Adapting to Climate Change and Combating Desertification in the Semiarid Region (INOVA CLIMA). In addition to these, there is a section for Project Management, which includes Monitoring and Evaluation (M&E), Knowledge Management (KM) and South-South and Triangular Cooperation (SSTC).

PPF II is the second phase and will build on the lessons learned from the previous project (PPF I), which was also funded by IFAD and AECID. As the PPF enters its second phase, the aim is not only to strengthen the solid foundations built in the previous phase and consolidate and extend the successful experience, but also to strengthen aspects related to areas previously covered only by grant operations in Brazil, such as Knowledge Management (KM), South-South and Triangular Cooperation (SSTC) and policy dialogue. In addition, the new project will introduce innovations such as: i) scaling up and expanding social technology solutions for access to water, renewable energy and sanitation; ii) virtual technical assistance; iii) nutrition-sensitive interventions; iv) transformative gender interventions; v) promoting gender- and nutrition-sensitive environmental and climate education in rural schools; vi) supporting land and environmental regularization, especially for PCTs.

The Project is aligned with all IFAD 13 cross-cutting commitments and will adopt a youth-sensitive, nutrition-sensitive, gender transformative and climate-centered approach, as well as prioritizing indigenous peoples. PPF II will contribute to strengthening the social inclusion of traditional peoples and communities (PCTs), women, youth and the LGBTQIAPN+ community, promoting their participation to increase their capacities and empowerment at different levels. The Project's activities consider the major climate challenges facing the semiarid region of Ceará and propose solutions for adaptation.

3. INSTITUTIONAL ARRANGEMENTS, ROLES, AND RESPONSIBILITIES

Project management and coordination

² The criteria used to delimit the semi-arid region will be those approved by Resolutions of the Deliberative Council of Sudene No. 107 of 27/07/2017 and No. 115 of 23/11/2017: Average annual rainfall equal to or less than 800 mm; Thornthwaite Aridity Index equal to or less than 0.50; Daily percentage of water deficit equal to or greater than 60%, considering all days of the year.

The SDA will be the Project's executing agency. The PMU will be located in a specific location at the SDA in Fortaleza and will take on the Project's implementation, management, and monitoring activities.

To guarantee the Project's presence in the field, PPF II focal points will be allocated dedicated physical spaces within dedicated rooms in EMATERCE's regional offices or outposts. The SDA/PPF II will allocate resources for the necessary renovations to ensure these offices function properly. This configuration should contribute to a better integration of the Project's activities with EMATERCE's programs.

The project will have a Strategic Management Committee (CGE) to foster collective management. This committee will provide technical support and assist the PMU in the main strategic decisions and will consist of representatives from the SDA's coordinating departments, the CEDR and related entities such as EMATERCE, IDACE and CEASA. To inform its deliberations and increase capillarity and articulation with territorial, state, regional and national public policies, PPF II will participate in two other governance spaces:

a. At a territorial level, the Micro-Regional Forums for Life in the Semiarid will act as Regional Committees, monitoring activities and providing the necessary support for the smooth implementation of the Project, always seeking complementarities and synergies with other initiatives. These forums already exist in all of Ceará's territories and are made up of civil society organizations (NGOs, associations, cooperatives, unions, churches, among others) and grassroots organizations that are already carrying out actions related to the objectives and target groups of the Paulo Freire II Project.

b. At the municipal level, the Municipal Committees for Coexistence with the Seminar, which already operate in the municipalities of the seminar of Ceará and support the implementation of programs and policies for coexistence with the semi-arid region, will be used as local committees to monitor the implementation of the project, carry out social control and support the mobilization of communities and families that will be included in the project. These committees are made up of social organizations, municipal agricultural secretariats, rural workers' unions, EMATERCE, municipal federations of associations, grassroots organizations, and others.

Main partnerships and key players

The institutional context related to public policies relevant to the Project includes the institutions listed below:

- The Secretariat for Agrarian Development (SDA) is responsible for implementing the Project. Its sub-secretariats will also play an important role in the implementation of PPF II. For example, the Coordination Office for Water Supply and Rural Sanitation (COÁGUA) will monitor the activities of component 2 and contribute to studies related to rural sanitation.
- Ceará's Technical Assistance and Rural Extension Company (EMATERCE) will take part in the Project's activities, which involve training family farmers.
- The Agrarian Development Institute of Ceará (IDACE), a special authority linked to the SDA, will be responsible for developing activities related to land regularization issues and the preparation of the Rural Environmental Registry (CAR).
- The São José IV Project, as part of the SDA, will be an important player, working on key issues addressed by PPF II. Synergies and complementarity will be sought.
- The Ceará State Secretariat for the Environment and Climate Change (SEMA) will contribute to the Project by issuing Environmental Licenses for the proposed activities and will support the Rural Environmental Registry (CAR).
- The Institute for Research and Economic Strategy of Ceará (IPECE) is responsible for preparing studies, surveys and socio-economic and geographical studies that support the development of public policies in the state. In PPF II, IPECE will support the preparation of relevant studies on the area of operation and its populations, as well as supporting the Impact Assessment study.

- The School of Social Gastronomy (EGS) is a training and research center focusing on gastronomy and food culture that will implement some of the nutrition activities of PPF II. The school will provide various theoretical and practical training modules on food culture and healthy eating habits, food processing and cooking. EGS is part of the Secretariat of Culture, administered by the Dragão do Mar Institute (IDM) and located in Fortaleza.
- Ceará's School of Public Health (ESP) is a teaching and research center that will contribute to the Project by offering health and nutrition training to vulnerable families.
- Civil society organizations will be important partners in the implementation of PPF II activities, especially by carrying out ATER activities.
- For innovation and other activities of the Productive and Environmental PDs, partnerships could involve research entities such as the Brazilian Agricultural Research Corporation (EMBRAPA), the National Semi-arid Institute (INSA), local universities and others.
- Municipal governments will be mobilized to participate in the Project's activities, contributing to the Territorial Plans and activities within their remit, as well as strengthening the governance necessary for the sustainability of the Project's activities.

Procurement and Governance

Tender governance will be the responsibility of the PPF II PMU. Its procurement arrangement will focus on a number of strategic supports:

For the selection of consultants for the PMU: An agreement will be signed with IICA - the Inter-American Institute for Cooperation on Agriculture, which already worked on the previous phase of the PPF. IICA will be responsible for selecting and hiring consultants to advise the PMU's core team. An exception will be made for professionals who worked on the previous phase, hired through IICA and who have undergone a selection process approved by IFAD, who may be hired directly to work on the second phase. Other professionals will have to be selected in accordance with IFAD rules. All Terms of Reference must be submitted to IFAD for analysis. Contracts may be on a permanent basis, but for payment purposes they must include monthly activity reports (time-based contracts under the IFAD rule). This Project Implementation Manual details the selection method for time-based consultants.

For Purchases of Goods and Contracting of Common Services (Equipment and logistics items for events): these will be incorporated into the agreement with IICA and carried out in accordance with the IFAD Regulations.

For the Selection of Field Technicians: A selection with a third sector entity must be arranged by the PMU to sign a management agreement or contract. This entity must meet the compliance requirements of the IFAD and AECID policies. It will be responsible for selecting and hiring technicians who will work on field-related activities. The Terms of Reference of these professionals must be submitted to IFAD and the entity must also comply with the IFAD rule for Selections.

For the selection of technical assistance for the beneficiaries and/or other services provided by legal entities, whether technical services or company consultancies: The State Attorney General's Office (PGE), through CEL 04 (Special Bidding Commission No. 04), will act in partnership with the PMU, carrying out the procurement procedures for the selection of third sector entities specialized in rural technical assistance and other procurement for the selection of companies/legal entities that are planned for the Project.

All contracts within the scope of PPF II for the provision of ongoing services, whether technical services or individual or company consultancies (PMU Consultants, Field Technicians, Technical Assistants), must contain in the validity/term extension clause the condition that the annual positive/satisfactory evaluation of the provision of services be carried out before they can be renewed, under penalty of termination/discontinuation. The

contracts must also contain the IFAD self-certification form and the Anti-Corruption and Anti-Harassment clauses. This PIM details these items in section 12 - Procurement and Contracting Management.

All dissemination of Project activities must have the permission of the PMU and refer to the Project, the Government of Ceará, IFAD and AECID. The respective agreements with management support entities must have a clause determining this way of making the information operational.

4. SECAP

IFAD Safeguard Policy. IFAD is committed to rural transformation through equitable, sustainable, and inclusive development. To enhance its contribution to the 2030 Agenda, to eradicate poverty in all its forms leaving no one behind, the Fund aims to direct its resources towards improving the livelihoods of the most poor and vulnerable people in rural areas, through its country strategies, investment projects and grants.

All projects undergo an environmental, social and climate assessment to help IFAD determine how to deal with potential risks and impacts (both those affecting the Project and those caused by the Project). The degree of socio-environmental and climate risk is determined in the assessment, with mitigation measures appropriate to the nature and scale of the Project. Should unforeseen environmental and social risks or impacts arise during the implementation of the Project, the Project team, in collaboration with the national authorities and implementing entities, must adjust the Project plan or introduce appropriate mitigation measures. For all IFAD-supported projects, the relevant standards - and how they will be applied throughout the Project life cycle - are identified during the Project design and appraisal process.

Climate change. Recognizing the importance of addressing the causes and consequences of climate change in the countries where it operates, IFAD assesses vulnerability to climate risks and supports its partners in developing climate adaptation and mitigation measures in line with their national climate plans and commitments. IFAD also identifies opportunities to avoid, minimize or reduce greenhouse gas (GHG) emissions in the projects it supports, as well as opportunities to support the implementation of climate change adaptation measures aimed at project resilience and sustainability.

Minimize adverse social and environmental impacts. IFAD will avoid or mitigate potential adverse impacts on the environment (including biodiversity and ecosystems), health and safety, working conditions (including the prevention of all forms of forced or exploitative labor and child labor) and the well-being and livelihoods of Project workers and local communities. IFAD will avoid supporting operations that have any potential unintended consequences in areas beyond the Project boundaries.

Gender. Addressing all forms of violence against women and gender-based discrimination and promoting gender equality is within IFAD's mandate. IFAD-supported projects will identify any potential gender-specific or disproportionately adverse impacts and develop mitigation measures to reduce them. IFAD will require its partners to adopt measures to prevent and address any form of gender-based violence, including sexual harassment, exploitation, abuse, discrimination, bullying and intimidation.

Improve the livelihoods of indigenous peoples and other marginalized groups. IFAD-supported projects will be designed to: (i) ensure ownership of and access to indigenous peoples' ancestral lands and territories; (ii) strengthen their institutions; (iii) ensure free, prior, and informed consent (FPIC); (iv) value indigenous knowledge systems; and (v) document and report the results of consultations with indigenous peoples and other marginalized groups. FPIC will also apply to communities of non-indigenous peoples when Project activities impact their land access and use rights.

Promoting appropriate agricultural and manufacturing processes. Agricultural processes will be guided by agroecological principles, the basis of sustainable agriculture, including traditional, indigenous and climate-resilient technologies, as well as social technologies already developed for food production, integrated pest management and the use of alternative and biological pest controls. Where the use of agrochemicals is necessary, projects will ensure (for example, through greater environmental awareness, farmer training and better field extension services) that their selection, application, storage, and disposal are in line with international standards. IFAD will require clients to apply international standards, including those on safe and healthy working conditions, and to establish and maintain an environmentally and socially sound management system.

IFAD's Environmental and Social Standards include key requirements for the environmental and social sustainability of projects. The Standards are intended for project design and implementation and for partners, who are ultimately responsible for project implementation. The Standards are based on the good practices of the United Nations, international financial institutions, and multilateral development banks. They should be consulted in full and cross-referenced, as necessary. The list of standards triggered by the PPF II Project is as follows³ :

Table 1: IFAD socio-environmental standards triggered by the Project and their objectives

Standard	Objectives
<p>Standard 1: Biodiversity conservation</p>	<ul style="list-style-type: none"> • Maintaining and conserving biodiversity; • Ensure the fair and equitable sharing of the benefits from the utilization of genetic resources; • Respect, preserve, maintain and encourage the knowledge, innovations and practices of indigenous peoples and local communities relevant to the conservation and sustainable use of biodiversity, and their customary use of biological resources; and • Adopt a preventive approach to the conservation and management of natural resources to guarantee opportunities for environmentally sustainable development.
<p>Standard 2: Resource efficiency and pollution prevention</p>	<ul style="list-style-type: none"> • Avoid, minimize, and manage the risks and impacts associated with substances and materials, including pesticides; • Avoid or minimize emissions of short- and long-lived climate pollutants generated by the Project; • Promote more sustainable use of resources, including energy, land, and water; and • Identify opportunities to improve resource efficiency.
<p>Standard 4: Indigenous peoples</p>	<ul style="list-style-type: none"> • Support indigenous peoples in defining priorities and strategies for exercising their right to development; • Ensure that each project is drawn up in partnership with indigenous peoples and with their full, effective, and meaningful consultation, taking into account FPIC; • Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from the activities supported by the Project in a culturally appropriate and inclusive manner; and • Recognize and respect indigenous peoples' rights to the lands, territories, waters, and other resources they have traditionally owned, used or relied on.

³https://www.ifad.org/documents/38711624/43547646/secap2021_01.pdf/31edfeff-f70c-67b0-994a-d0ec4630dd81?t=1635770346986.

<p>Standard 5: Labor and working conditions</p>	<ul style="list-style-type: none"> • Promote direct activities to foster adequate rural employment; • Promoting, respecting, and realizing fundamental principles and rights: preventing discrimination and promoting equal opportunities for workers; supporting freedom of association and the right to collective bargaining; and preventing the use of child labor and forced labor; • Protecting and promoting workers' health and safety; • Ensure that projects comply with national labor and employment laws and international commitments; • Leave no one behind by protecting and supporting workers in situations of disadvantage and vulnerability, including women (e.g., maternity protection), young workers, migrant workers, workers in the informal economy and workers with disabilities.
<p>Standard 9: Climate Change</p>	<ul style="list-style-type: none"> • Ensure that IFAD-supported projects are aligned with countries' nationally determined contributions (NDCs), the objectives of the Paris Agreement and other international frameworks; • Ensure that proposed activities are selected and assessed for climate risks and impacts of possible disasters, including the impacts of projects on these risks; • Apply the mitigation hierarchy in project design; • Strengthen the resilience of communities to deal with the risk of climate change impacts and climate-related disasters; • Increase the capacity of communities to adapt to the adverse impacts of climate change and promote climate resilience and low GHG emission projects that do not threaten food production.

In general, vulnerable groups face greater barriers than the general population to participating in public consultation meetings. They may not understand the impacts of this Project due to language barriers (or feel inhibited due to their status in the community) and therefore may not always be able to understand and freely express their concerns and interests about PPF II. Some people, especially those with a low level of literacy and members of indigenous communities who are not fluent in Portuguese, face communication challenges and may find it impossible to participate. To avoid this potential exclusion, in the Free, Prior and Informed Consent (FPIC) process, indigenous peoples will need to be consulted in their own language whenever possible. The Project must consider the limitations identified and ensure that all mapped interest groups, especially Project Affected People (PAP), are included and supported to overcome the limitations they face and participate in the consultation processes.

Potential adverse social and environmental impacts and mitigation measures

The project has a moderate environmental and social category.

Regarding environmental risks, there are moderate risks related to: i) the possibility of increased encounters with wildlife as a result of the ecological restoration processes, which may create more favorable foraging niches for these species; ii) the acquisition of natural resources as inputs for the agroforestry activities supported by the Project; iii) the acquisition of agrochemicals (pesticides and fertilizers) - although the agroecological approach proposed by the Project does not require this type of input, its use is quite common and is part of the production strategies normally used by farmers; and iv) support for sheep and goat husbandry, which can contribute to the common problem of overgrazing. Deforestation already exists in the Project region, converting Caatinga areas into pasturelands. The Project is unlikely to increase this pressure, as it will focus on agroforestry systems that preserve the original vegetation.

For the environmental, social and climate management of the Project, an Environmental and Social Management Framework (ESMF) has been drawn up, with a detailed description of the risks and management measures to be implemented by the Project. The Project will develop an Environmental, Social and Climate Management Plan (ESMP) to manage these risks and will include measures to avoid the purchase of inputs that do not comply with standards relating to sustainably sourced natural resources and harmful agrochemicals, encouraging the adoption of agroecological practices. The development of the ESMPs will take place concurrently with the development of each PDRL. These plans will also help in the design of the Environmental PDs. All the measures to mitigate risks and impacts are well known and should not pose a challenge for state institutions, which have good experience in applying social and environmental safeguards to projects with external funding, as well as having a comprehensive legal and institutional framework to deal with all the issues mentioned above.

Regarding social risks, there is a moderate risk related to the presence of indigenous peoples and traditional communities with their own knowledge and ways of life. The Project will develop a Free, Prior and Informed Consent (FPIC) Implementation Plan to implement and strengthen processes for the effective participation of indigenous peoples and traditional communities in the planning and execution of Project activities. During the design, an Indigenous Peoples Plan Framework was drawn up. The Project will also develop a Gender, Youth, Social Inclusion and Nutrition Strategy (preliminary strategy available in Annex K), which will contribute to mitigating any risks related to the inclusion, benefit, and empowerment of the target groups, ensuring the effective participation and empowerment of these groups.

ESMF implementation plan

The Project has an Environmental and Social Management Framework (ESMF) and a Targeted Adaption Assessment (TAA). Both documents analyze the Project's implementation context, its possible adverse impacts, risks, and respective mitigation measures. They also present the relevant legal and institutional framework (national and IFAD regulations). The ESMF will be implemented by the ATER institutions and other technical assistance services involved in the Project, under the supervision of the PMU, which will establish a specialized team to monitor the implementation of social, environmental and climate safeguards. The points mentioned in the following paragraphs must be followed when elaborating the Productive and Environmental Development Plans (PDs). The ESMF report includes the ESMP forms to be filled in for the formulation of the productive and environmental PDs, which will also be used to monitor the Project's social, environmental and climate safeguards.

ESMP

The Environmental and Social Management Plans (ESMP) will be drawn up at the same time as each PD. These plans provide a simplified Environmental and Social Impact Analysis and will help in the design of the PDs to promote and encourage the adoption of agroecological practices for diversified production. The ESMP will also serve as a tool for diagnosing the territory's natural resources, identifying degraded areas and areas to be protected, allowing specific investments to be made in environmental issues in the Environmental PDs, complementing the social and economic activities of the PD.

The ESMPs will be monitored by the PMU and the results of this monitoring will be included in the Project's progress reports, indicating any non-conformities found and the respective corrective measures agreed and complied with. The PMU will be responsible for training the technicians working on the preparation of the Local Rural Development Plan (PDRL) about the implementation of the ESMP. Since the PDs will involve more than one community, the impacts will have to be analyzed at a territorial or watershed level.

The application of the ESMP form serves as a filter for PD activities, such as the implementation of good practices in production areas, to verify whether environmental and social safeguards are triggered. Proposals that include activities that are expected to have a low or moderate environmental impact that can be mitigated must present a description of the mitigating measures in the plan for. The Project will not provide funding for activities that are expected to have diffuse, wide-ranging or high-intensity environmental or social impacts.

OBJECTIVES TO BE OBSERVED IN THE ANALYSIS OF SOCIAL AND ENVIRONMENTAL IMPACTS DURING THE PREPARATION OF PROJECTS AND ACTIVITIES

BIODIVERSITY CONSERVATION

Maintain and conserve biodiversity;
Ensure the fair and equitable sharing of benefits from the utilization of genetic resources;
Respect, preserve, maintain and encourage the knowledge, innovations and practices of indigenous peoples and local traditional communities relevant to the conservation and sustainable use of biodiversity, and their customary use of biological resources; and
Adopt a preventive approach to the conservation and management of natural resources to ensure opportunities for environmentally sustainable development.

ITEMS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Suppression of vegetation;
- Fires;
- Collecting forest products;
- Restoration of Legal Reserves (RL) and/or Permanent Preservation Areas (APP);
- Risk of degradation of arable land;
- Soil erosion;
- Introduction and current distribution of invasive alien species;
- Prevalence of monocultures using insecticides, fungicides, and herbicides.

RESOURCE EFFICIENCY AND POLLUTION PREVENTION

Avoid, minimize, and manage the risks and impacts associated with hazardous substances and materials, including pesticides;
Avoid or minimize emissions of pollutants related to short- and long-term climate change generated by the Project;
Promote the sustainable use of resources, including energy, land, and water;
and
Identify, where feasible, project-related opportunities for resource efficiency.

ITEMS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Selection of sites and species of trees planted;
- Integrated soil fertility management and the promotion of green/organic fertilizers;
- Integrated disease and pest management;
- Use of pesticides;
- Production and treatment of waste and effluents;
- Availability of water resources (underground and surface) and state of preservation of springs;
- Consumption of firewood for energy;
- Integration of trees and shrubs that maintain or improve biodiversity and ecosystem functionality.

INDIGENOUS PEOPLES AND TRADITIONAL COMMUNITIES

- Support indigenous peoples and traditional communities in defining priorities and strategies for exercising their right to ethno-development;
- Ensure that each Project is designed in partnership with indigenous peoples and traditional communities and with their full, effective, and meaningful consultation, taking into account FPIC;
- Ensure that indigenous peoples and traditional communities obtain fair and equitable benefits and opportunities from the activities supported by the Project in a culturally appropriate and inclusive manner; and
- Recognize and respect the rights of indigenous peoples and traditional communities to the lands, territories, waters, and other resources they have traditionally owned, used or relied on.

ITEMS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Free, Prior and Informed Consultation (FPIC) - Community consent;
- Adaptation of activities to the culture and organization of the community.

LABOR AND WORKING CONDITIONS

- Promote direct activities to encourage appropriate rural work;
- Promoting, respecting, and realizing fundamental principles and rights:
- Preventing discrimination and promoting equal opportunities for workers;
- Support freedom of association and the right to collective bargaining;
- Prevent the use of child labor and forced labor;
- Protecting and promoting workers' health and safety;
- Ensure that Projects comply with national labor and employment laws and international commitments;
- Leave no one behind by protecting and supporting workers in situations of disadvantage and vulnerability, including women (e.g., maternity protection), young workers, migrant workers, workers in the informal economy and workers with disabilities.

ITEMS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Hiring labor from outside the community (existence of protocols to prevent sexual exploitation, transmission of STDs, sanitary conditions of construction sites);
- Use of Personal Protective Equipment (PPE);
- Obtaining building permits;
- Observation of labor legislation;
- No child labor.

CLIMATE CHANGE

- Ensure the alignment of IFAD-supported projects with countries' nationally determined contributions (NDCs) and the objectives of the Paris Agreement and other international frameworks;
- Ensure that proposed activities are selected and assessed for climate risks and the risks and impacts of possible disasters, including the impacts of projects on these risks;
- Apply the mitigation hierarchy in Project design;
- Strengthen the resilience of communities to deal with the risk of climate change impacts and climate-related disasters;
- Increase the capacity of communities to adapt to the adverse impacts of climate change and promote climate resilience and low GHG emission Projects that do not threaten food production.

ITEMS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Reports of water shortages at the Project site;
- Reports of irregularity or lack of rain at the Project site;
- Reports of periods of drought (regular or irregular) at the Project site;
- Reports of an increase in diseases such as dengue or malaria at the Project site;
- Identification and valorization of local drought-resistant species;
- Location of Project investments in flood-prone areas;
- Location of Project investments in areas subject to forest fires/burn-offs;
- Location of Project investments in areas subject to landslides (slopes, ravines).

5. Targeting

Project Area

The Project will cover 74 municipalities in the semiarid region⁴ of the state of Ceará. The population of the Project area is estimated at 2,499,605, of which 50.9% are women (1,271,632) and 23.7% are young people aged between 15 and 29 (592,541)⁵. There are 10,437 quilombolas living in the Project region, of which only 19% (2,033 people) live in titled quilombola territories. 36,492 indigenous people live in the Project area, of which only 6,842 live on indigenous lands (or 18.7%). There are 178,143 agricultural establishments in the Project area, of which 135,702 (or 76.2%) are family farms. Of the total number of family farms, 25,122 (or 18.5%) are managed by women and 15,879 (or 11.7%) by young people under the age of 35⁶. The population of the municipalities in the Project's area is among the poorest in Brazil (45% or 1,123,322 people in poverty and extreme poverty)⁷, with limited access to basic social services, high levels of social, environmental, and climatic vulnerabilities and high rates of food insecurity and malnutrition (with 2.4 million people suffering from hunger in 2022)⁸.

Profile of target groups

Approximately 80,000 families of family farmers (around 320,000 people) will benefit directly from the Project, of which at least 50% will be represented by women, 15% by young people and 5% by Traditional Peoples and Communities (PCTs), both of which are considered priority groups. The Project's main target groups are: i) family farmers living in poverty and extreme poverty; ii) rural women; iii) rural youth; iv) PCTs; and v) LGBTQIAPN+.

PPF II's target groups consist of poor and extremely poor rural families whose livelihoods are based on low-productivity family farming, mainly for self-consumption and some sales, and small animal husbandry. Although the production strategies of the target populations are similar, the PPF II target groups are quite diverse in terms of socio-cultural characteristics, forms of productive organization, relationship with the territory, level of articulation / association and market access. Therefore, the Project will have a flexible approach, adapted to the needs, capacities and demands of the beneficiary families, respecting and valuing cultural differences and the diversity of their ways of life, social and productive organization.

⁴ The criteria used to delimit the semi-arid region will be those approved by Resolutions of the Deliberative Council of Sudene No. 107 of 27/07/2017 and No. 115 of 23/11/2017: Average annual rainfall equal to or less than 800 mm; Thornthwaite Aridity Index equal to or less than 0.50; Daily percentage of water deficit equal to or greater than 60%, considering all days of the year.

⁵ IBGE, 2022. Demographic Census.

⁶ IBGE, 2017. Agricultural Census.

⁷ Single Registry, 2023. IBGE, 2022. Demographic Census.

⁸ PENSSAN, 2022.

Based on the above considerations, the following target groups were identified:

(i) Family farmers living in poverty and extreme poverty: This is the Project's main and largest target group due to their high levels of poverty and extreme poverty, as well as food insecurity and malnutrition. The subsistence of this group is based on low-productivity family farming, mainly ensuring self-consumption with the sale of surpluses and some cases of activities exclusively for sale, extractive practices, and small animal husbandry. The Project will work with family farmers to promote agroecological production systems to increase diversification, climate resilience, restoration of environmental services, production, and income.

Target subgroups

Agrarian Reform Settlers: The rural environment of the Brazilian semiarid region is still marked by a high concentration of land, socio-economic inequalities, and agrarian conflicts. Data from the CadÚnico (2023) indicates that there are 2,468 families of agrarian reform settlers registered in the Project area, of which 54.8% are in a situation of poverty or extreme poverty. In addition to high poverty rates, this group has other socio-economic vulnerabilities, including: i) insecure access to land, since not all of them have received land titles; ii) water insecurity, since collective sanitation and water access infrastructures are non-existent, precarious or have not been completed; iii) lack of access to technical assistance; and iv) precarious access to public credit, education, security, health and housing policies, among others.

(ii) Rural women: Women will represent at least 50% of the total beneficiaries (40,000 families with activities focused on women). With the aim of reducing the gender gap in the target population, the Project will develop activities targeted at including women, in particular female-headed households, PCT women and young women. Based on the concept that women have a high capacity to change their own reality, to reject imposed patterns and to resist the limitations established by the environment, the Project will promote a holistic approach to transforming gender relations and empowerment. This approach considers the environmental, economic, political and cultural causes of the social vulnerability of rural women in the semiarid region. Based on the lessons learned and good practices of the Brazilian portfolio, PPF II will: i) promote economic empowerment and equal access to and control over resources and goods, ii) foster changes in the dynamics of the sexual division of labor, addressing the female overload in the combination of productive and reproductive work, iii) increase and strengthen the participation of women's groups and associations; and iv) contribute to the expansion of decision-making spaces for female participation in rural institutions and organizations. To achieve these objectives, the project will use technical assistance and training methodologies, including Agroecological Logbooks (ALs) as an important tool for measuring, valuing, and giving visibility to women's fundamental contributions to the family economy, as well as to community development, promoting women's self-esteem and confirming their important contribution to a healthy, diversified, and safe family diet. Through the introduction of social technologies, especially those related to access to water, the aim will be to reduce the difficulties of women's work. Women's participation in Project activities will be facilitated through the organization of childcare services, leadership training and the promotion of women's decision-making roles at community or organizational level. In addition, the introduction of social technologies (ST), such as renewable energy and water harvesting, which will improve domestic sanitation, hygiene, and nutritional diversity, will constitute to gender equality. Women's workload will be reduced, mainly using time-saving ST related to access to water. Gender training for beneficiary communities and awareness-raising on preventing and combating gender-based violence are planned. Gender parity and diversity will also be sought in the PMU and field staff, and all ATER professionals will receive gender sensitization.

Target subgroups

Female-headed households: Female-headed households lag behind their male counterparts in access to and ownership of most of the inputs, goods, and services relevant to productive activities in rural areas. The chances of food insecurity are supposedly higher among female-headed households compared to male-headed households in Brazil. According to recent data from Brazil, 63.0% of female-headed households had some degree of food insecurity, and hunger affected 18.8% of them⁹. In comparative terms, hunger affects female-headed households 7.4 percentage points more than male-headed households in the country.

Women from traditional peoples and communities: Indigenous and quilombola women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty, and food insecurity, as well as having even more limited access than other women in the Project area to public health and education policies, among others¹⁰. In addition to being the target of triple discrimination: gender, race, and socioeconomic status, they are also the target groups most vulnerable to climate change. Despite this, women from Traditional Peoples and Communities (PCTs) play a fundamental role in environmental preservation, as guardians of ancestral food and production knowledge and practices.

Young women: Young rural women are often "left behind" because of a triple burden of overlapping challenges: age, socio-economic status, and gender. 50% of the young people participating in PPF II activities will be young women. In addition, special attention will be paid to promoting the self-esteem and self-confidence of this target group, as well as addressing issues such as reproductive health, early pregnancy, and gender-based violence.

(iii) Rural youth: Young people between the ages of 15 and 29¹¹ will represent at least 15% of the total beneficiaries of the Project (12,000 families with activities focused on young people), half of whom must be women. The Project will work with an integrated perspective to address the root causes of youth exclusion, using successful approaches from other IFAD-supported projects in Brazil. Examples of these approaches are supporting the involvement of young people in the adoption of practices, approaches and techniques based on the principles of agroecology and coexistence with the semiarid region, which encourage the sustainable use and management of natural resources; creating new opportunities for work and income generation; promoting social skills and involvement in processes of social transformation in the territories; training young leaders; training young people in decision-making at community, territorial and organizational level; technical assistance services adapted to the different needs of young people and incorporating them into their teams, especially those who have graduated from CEFFAs¹² and similar institutions; youth caravans and festivals; the Young Communicators programme to involve this group in social communication activities; and support for rural youth networks.

Target subgroups

- i) young people who are involved in agricultural or non-agricultural activities, with an interest in expanding their activities or undertaking them individually and/or collectively in associative and cooperative organizations;

⁹ PENSSAN, 2022.

¹⁰ UN WOMEN, 2021.

¹¹ The Youth Statute defines young people as those aged between 15 (fifteen) and 29 (twenty-nine) years old. Source: https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/l12852.htm.

¹² Specific School for rural education, which uses the alternance pedagogy, combining technical learning with knowledge of everyday community life. Family Training Centers by Alternance (CEFFAs) are known by different names, among them: Rural Community Schools (ECORs); Agricultural Family Schools (EFAs); Rural Family Houses (EFAs) and Sea Family Houses (CFMs).

- ii) Young people who want to implement productive projects, whether agricultural or non-agricultural, but find it difficult to make themselves heard and represented in family decisions
- iii) Youth from indigenous and traditional communities: Indigenous and quilombola youth are among the most marginalized and socially excluded groups, facing higher rates of poverty and food insecurity, and will be prioritized.
- iv) young students from CEFFAs and similar institutions, boosting the experiences of the alternance pedagogy in the multiplication of good practices of contextualized education, productive inclusion, and income generation for rural youth.
- v) LGBTQIAPN+ youth.

(iv) Traditional peoples and communities: will represent at least 5% of the total beneficiaries (4,000 families). The Project will implement IFAD's Policy on Indigenous Peoples (2022)¹³ with its focus on the empowerment of traditional communities (PCTs). PPF II will adopt Free, Prior and Informed Consent (FPIC) for activities involving PCTs, considering IFAD's previous experience. This will be approached from a perspective that considers the multidimensionality of the territories of the PCTs, oriented towards the governance and sustainable collective management of their territories, ethno-development, the sustainability of their food systems, the conservation and use of biodiversity and agrobiodiversity based on traditional knowledge, as well as access to markets for the promotion of cultural identity. The ATER approach will consider these socio-cultural aspects, traditional knowledge, and ways of life, and all ATER technicians will receive training in race and ethnicity. The PCTs will also benefit from greater access to water, access to renewable energy and sanitation through adapted social technologies that improve their living conditions and will be prioritized when receiving productive investments. The Project will also contribute to the valorization and dissemination of traditional knowledge related to production (Traditional Agricultural Systems - TAS) and nutrition, through participatory nutritional education actions.

Target subgroups

Young people and women from indigenous and traditional communities.

(v) LGBTQIAPN+ Community: PPF II will seek to include the LGBTQIAPN+ community in its activities, considering LGBTQIAPN+ diversity, to promote their inclusion and ensure respect for their rights. It will seek to implement IFAD's Diversity, Equity, and Inclusion Strategy (2021)¹⁴. Initially, the Project will map LGBTQIAPN+ movements and hold consultations to hear their main demands. Based on the diagnosis and consultations, a strategy for the social inclusion of this group will be defined. Awareness-raising campaigns on the rights of the LGBTQIAPN+ community and against LGBTphobia will be promoted, the Project will support the development of Knowledge Management products for training in schools on the subject of sexual and gender diversity, a diagnosis will be made of the socio-economic and political barriers to inclusion of this group in the state of Ceará (especially in rural areas) and LGBTQIAPN+ movements in the countryside present in the project area will be supported.

This table summarizes the main characteristics and needs of the target groups, as well as the Project's responses:

¹³ IFAD Policy on Engagement with Indigenous Peoples: 2022 update. Available at: <https://www.ifad.org/en/-/document/ifad-policy-on-engagement-with-indigenous-peoples>.

¹⁴ IFAD Strategy on Diversity, Equity and Inclusion: Update. Available at: <https://webapps.ifad.org/members/eb/138/docs/EB-2023-138-R-12.pdf>.

Target group	Features	Needs	Project Responses
<p>Family farmers in poverty and extreme poverty</p>	<p>High rates of poverty, extreme poverty, food insecurity and malnutrition;</p> <p>They mainly grow crops in mixed crop-livestock systems, mainly for self-consumption, with some added value through processing and selling surpluses;</p> <p>Agricultural systems with low productivity, diversification, competitiveness, and resilience;</p> <p>Low capacity for sustainable food production;</p> <p>Limited access to technical assistance and training;</p> <p>Limited organizational capacity for adding value and marketing;</p> <p>Low schooling and high illiteracy rates;</p> <p>Many do not have secure land titles, which hinders their access to public credit policies;</p> <p>Precarious or limited access to water for human consumption and productive use;</p> <p>Restricted or non-existent access to basic sanitation;</p>	<p>Creating regular, diversified, and sustainable job opportunities and income streams;</p> <p>Increased productivity, productive diversification, and resilience of healthy food production systems;</p> <p>Increasing the added value of production;</p> <p>Market access;</p> <p>Collective organization;</p> <p>Technical training;</p> <p>Improving knowledge and practices of nutrition, sanitation, and hygiene;</p> <p>Access to water for human consumption and production;</p> <p>Access to sanitation;</p> <p>Social and economic empowerment;</p> <p>Greater access to bio-inputs, creole seeds, adapted technologies, natural and productive resources.</p> <p>Access to land/territory;</p> <p>Reducing vulnerability to climate and environmental</p>	<p>Providing specialized and continuous STA to improve nutrition, food security and production practices to increase productivity, diversification, resilience, and income generation;</p> <p>Ensure regular and diversified income streams for families in order to support economic empowerment and autonomy;</p> <p>Promoting access to various public policies, such as credit;</p> <p>Strengthening marketing capacities, such as by supporting access to institutional markets - PNAE and PAA - and local non-governmental markets, such as fairs;</p> <p>Technology transfer and innovation, such as digital ATER pilots and qualified training for ATER staff;</p> <p>Strengthening collective family farming organizations;</p> <p>Training on issues related to gender, generation, and ethnic-racial inclusion;</p> <p>Installation of social technologies for access to water,</p>

	<p>Difficulties in accessing public policies aimed at family farming;</p> <p>Limited decision-making power.</p>	<p>risks;</p> <p>Strengthening collective family farming organizations, such as associations and cooperatives.</p>	<p>support for agricultural production and family infrastructure (cisterns, gray water reuse systems, sanitary modules, eco-efficient stoves, biodigesters);</p> <p>Participation of organizations representing family farming in all stages of the Project;</p> <p>Restoration of degraded areas and reduction of fires, increasing environmental quality.</p>
Rural women	<p>High incidence of poverty and food insecurity;</p> <p>Restricted access to land, credit, documentation, adapted technologies, inputs, natural and productive resources;</p> <p>Challenges to marketing their production;</p> <p>Double working hours;</p> <p>Violence against women;</p> <p>Decision-making power limited by the patriarchal and macho structure;</p> <p>Lack of access to basic services such as education, health, and social assistance;</p>	<p>Access to and ability to dispose of assets such as bio-inputs, adapted technologies, land and credit;</p> <p>Market access;</p> <p>Reduced working hours and distribution of domestic and care work;</p> <p>Increasing gender equity;</p> <p>Training on nutritional and hygiene practices appropriate to gender and age;</p> <p>Combating all forms of violence against women;</p> <p>Training in fair distribution of labor/sexual division of labor and equal participation in mixed collective</p>	<p>Technical assistance provided by a team, preferably made up of women, with specific experience in working with women;</p> <p>Support for access to the PNAE, the PAA and local non-governmental markets, such as fairs;</p> <p>Drawing up a gender strategy and action plan;</p> <p>Participation and leadership in socio-economic planning (with specific diagnosis of women's demands);</p> <p>Increased participation and decision-making power in socio-economic planning (with specific diagnosis of women's demands);</p>

	<p>Vulnerability to climate change;</p> <p>Water insecurity;</p> <p>Lack of basic sanitation.</p>	<p>organizations;</p> <p>Training opportunities;</p> <p>Productive diversification;</p> <p>Access to social technologies for access to water;</p> <p>Access to sanitation;</p> <p>Greater participation, voice and decision-making power in collective FA organizations and policy dialogue;</p> <p>Encouraging collective organizations/group s of rural women.</p>	<p>Promoting the autonomy, income generation and productive organization of rural women.</p> <p>To highlight the importance of serving rural women at all stages of the Project;</p> <p>Training processes on feminism, women's rights, and ways of accessing public policies for rural women;</p> <p>Training processes in collective organizations to promote women's empowerment and gender equity in the management of organizations;</p> <p>Communication interventions to change gender behaviors;</p> <p>Training and dialogue to increase women's participation, voice, and leadership in collective FF organizations;</p> <p>Installation of social technologies for access to water, support for agricultural production and family infrastructure (cisterns, grey water reuse systems, sanitary modules, eco-efficient stoves, biodigesters);</p> <p>Support for the implementation of</p>
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			<p>AFSs and productive agroecological backyards;</p> <p>Participation of organizations representing rural women in all stages of the project.</p>
Rural youth	<p>High incidence of poverty, food insecurity and malnutrition;</p> <p>Lack of opportunities for decent work, income generation and education, resulting in migration to the cities;</p> <p>Restrictions on access to land, bio-inputs, credit, adapted technologies, natural and productive resources;</p> <p>Limited access to education, culture, and leisure;</p> <p>Limited access to healthy and varied diets;</p> <p>Lack of public policies focused on rural youth;</p> <p>Decision-making power limited by the patriarchal and macho structure in the case of young women.</p>	<p>Generating work and income in activities that appeal to young people;</p> <p>Access to and ability to dispose of assets such as land/territory, bio-inputs, adapted technologies, credit and natural resources;</p> <p>Opportunities for emancipatory education, training in agroecological production and nutritional education;</p> <p>Greater voice, participation, and influence in collective family farming organizations;</p> <p>Strengthening rural youth networks and organizations;</p> <p>Support for business development;</p>	<p>Drawing up and implementing a youth strategy and action plan;</p> <p>Promoting the socio-economic empowerment of young people through productive/business plans;</p> <p>Support for the implementation of AFSs and productive agroecological backyards led by young people;</p> <p>Support for young people's entrepreneurship and innovation;</p> <p>Promote meetings, exchanges and learning routes to exchange agroecological knowledge;</p> <p>Vocational training;</p> <p>Raising awareness of nutritional issues;</p> <p>Training for Young People's Communicators in communication techniques, technologies and languages and semi-arid themes;</p> <p>Support and carry</p>

			<p>out artistic and cultural expression activities for young people in the semiarid region;</p> <p>Training in associativism/cooperativism and leadership so that young people can participate more in rural organizations;</p> <p>Participation of organizations representing rural youth in all stages of the Project.</p>
Traditional Peoples and Communities (PCTs)	<p>High incidence of poverty and extreme poverty, food insecurity and malnutrition;</p> <p>High incidence of the double burden of malnutrition (underweight and overweight/obesity);</p> <p>Vulnerability to climate change and limited access to water and sanitation;</p> <p>Restrictions on access to bio-inputs, credit, adapted technologies and natural and productive resources;</p> <p>Traditional knowledge and practices of production, food and natural resource management are not properly recognized and valued;</p>	<p>Creating opportunities for decent work and income generation;</p> <p>Access to and control of bio-inputs, credits, adapted technologies and natural and productive resources;</p> <p>Recognition, respect and appreciation of traditional knowledge, practices, and ways of life (including nutritional knowledge);</p> <p>Valuing socio-biodiversity;</p> <p>Security of land tenure;</p> <p>Access to indigenous and quilombola education and food;</p>	<p>Drawing up and implementing a strategy for the inclusion of PCTs;</p> <p>Promote the socio-economic empowerment of the PCTs, respecting their cultural specificities;</p> <p>Promote ethno-development and access to adapted public policies and productive development;</p> <p>Mapping the particularities of traditional communities;</p> <p>Use of free, prior, and informed consent (FPIC);</p> <p>Formative processes in ethno-development and the rights of the PCTs;</p> <p>Training processes for technical teams on the specificities of</p>

	<p>Land insecurity and vulnerability to land conflicts;</p> <p>Lack of access to services such as health and education;</p> <p>Limited decision-making power due to structural racism.</p>	<p>Contextualized technical training and social empowerment;</p> <p>Fighting racism;</p>	<p>working with PCTs;</p> <p>Provision of technical assistance adapted to the practices of traditional peoples and communities;</p> <p>Support for access to PNAE, PAA and local non-governmental markets, such as fairs;</p> <p>Specialized ATER for improved food security and nutrition, greater access to public policies, improved productivity, diversification, and resilience;</p> <p>Expansion and dissemination of innovations based on indigenous and traditional knowledge;</p> <p>Participation of the organizations representing the PCTs in all stages of the Project.</p>
LGBTQIAPN+ community	<p>High rates of gender-based violence;</p> <p>Absence of a focused social assistance policy;</p> <p>Rural exodus of the LGBTQIAPN+ population to urban centers;</p> <p>Limited access to income;</p> <p>Low employability in the field;</p>	<p>Combating LGBTphobia and gender-based violence;</p> <p>Creating decent work and income opportunities in rural areas;</p> <p>Technical training and training opportunities;</p> <p>Access to and control of bio-inputs, credits, adapted technologies and</p>	<p>Awareness campaigns on the rights of the LGBTQIAPN+ community and against LGBTphobia;</p> <p>Preparation, in partnership with LGBTQIAPN+ movements, of CG products that can support awareness campaigns in schools and rural communities regarding LGBTQIAPN+ rights;</p>

	School dropouts.	natural and productive resources;	<p>Promoting consultations and collaboration with rural LGBTQIAPN+ movements, such as the MST's LGBT Working Group;</p> <p>Implementation of IFAD's Diversity, Equity, and Inclusion Strategy (2021);</p> <p>Diagnosis of the socio-economic and political barriers to inclusion of this group in the state of Ceará, especially in rural areas;</p> <p>Drafting and implementing a strategy and action plan for LGBTQIAPN+ inclusion;</p>
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5.1 Geographical targeting

1. The selection of the municipalities is based on the Municipal Alert Index (IMA)¹⁵, developed by IPECE, which integrates 12 indicators to measure the vulnerability of municipalities in climate, agricultural and social assistance dimension. The selection also considered the objective that the areas of operation of the three IFAD interventions in Ceará - PPF II, Sertão Vivo and Projeto Dom Helder Câmara III - cover the entire semi-arid region of the state and do not overlap. The area selected combines new areas with some territories from the previous phase, which will serve as a reference for replicating experiences and consolidating results.

5.2 Social targeting

The main criterion for direct social targeting will be that at least 70% of the beneficiary families have the profile of the CadÚnico (poverty and extreme poverty) or are registered in state social programs, such as Ceará Sem Fome and Mais Infância Ceará, which have a targeting aligned with that of IFAD and work with families in situations of poverty and food insecurity. The remaining 30% must be family farmers whose livelihoods are based on low-productivity family farming.

Other possible direct targeting measures include: introducing training processes aimed specifically at women, PCTs, young people and the LGBTQIAPN+ community; prioritizing target groups (e.g. women) to develop demonstration/learning units, lead discussions, give presentations and participate in agricultural/social technology exhibitions; providing

¹⁵ The measured indicators are as follows: agricultural productivity per hectare, agricultural production per inhabitant, use of the harvested area for subsistence crops, crop losses, proportion of families benefiting from Bolsa Família, number of Seguro Safra vacancies per 100 rural inhabitants, climatology, normalized rainfall deviation, surface runoff, rainfall distribution index, aridity index and the situation of water sources in the supply systems of urban centres.

recognition awards for the transformative role in their territories specifically for young people, women and PCT farmers; promoting visits, exchange programs and participation in fairs and exhibitions by women, young people, PCTs and the LGBTQIAPN+ community.

Empowerment and capacity-building measures. PPF II will provide differentiated technical assistance to those groups that have historically been excluded from public policies, facilitating their access to them, encouraging more active participation by the target groups in the Project's activities and in decision-making processes at the family, association, community, and territorial levels. Within the framework of PPF II, various educational activities are planned (training, workshops, and exchanges) which will prioritize the target groups.

Other possible empowerment measures include: raising awareness, through Project trainings and activities, about gender, youth inclusion, race and ethnicity in communities; mobilizing women, youth, PCTs and members of the LGBTQIAPN+ community to participate in Project activities and supporting the participation of their representative organizations in Project governance bodies; strengthening and supporting the formation of groups, associations and networks of women, youth and members of traditional peoples and communities; providing leadership training for women, youth and members of traditional peoples and communities; work with women, youth and PCTs with innovative approaches in the communities; integrate issues related to gender, youth, nutrition, race and ethnicity into all rural extension and farmer training programs; disseminate public information about the Project to ensure that activities and services are accessible to all and that there is transparency; formulate an inclusive communication strategy at the Project level; discuss gender, youth, ethnic-racial and targeting issues in workshops and community sensitization meetings.

Self-targeting measures. The Project activities will respond specifically to the priorities, strengths and working capacity of the target groups. Income-generating activities, such as those part of Local Rural Development Plans (PDRLs) and Business Plans, will be planned with the participation of the target groups themselves, considering their needs and livelihood difficulties, and which they consider relevant and within their reach.

Other possible self-targeting measures include: setting limits or ceilings on the granting of assistance available to a group or individuals; selecting, in dialogue with their representative organizations, technologies that address women's work constraints and are suitable for use by women, young people and members of traditional communities; enhancing crops suitable for women, young people, people living in poverty and members of traditional communities, taking into account local biodiversity, the communities' ancestral knowledge and practices, their potential for food and nutrition security, local sales, small volume, low consumption, low risk, proximity to home, local processing and opportunities for adding value.

Facilitating measures. PPF II will support the promotion of sustainable and socially equitable development, through awareness-raising activities and political dialogue. The Project's technical assistance bodies will receive training focusing on gender, generation, race/ethnicity, nutrition, and climate resilience issues. Political dialogue will also be fostered to influence public actions and policies in relation to investments in family farmers, young people, women and traditional peoples and communities; advocating approaches in favor of the most vulnerable rural populations, gender equality, youth empowerment; conducting policy studies on aspects of social inclusion, ensuring research agendas that address issues of relevance to farmers living in poverty, women, young people, PCTs and the LGBTQIAPN+ community.

Operational measures. A gender and PCT specialist, a youth specialist, and a nutrition specialist (Terms of Reference in Annex 1) will be integrated into the PMU team. Both the Project team and the implementing partners will be informed about gender, generation, race/ethnicity, and nutrition issues. In addition, gender, generation and race/ethnicity parity and diversity will be sought in the PPF II team, among technical assistance providers, and in the representation and participation spaces promoted by the Project.

Other possible operational measures include: translating application forms and Project documents into the indigenous languages of the Project area; communicating the criteria for participation in the Project to the community; communicating to communities the complaints and grievances mechanisms and procedures (GRM); providing childcare services in order to facilitate women's participation in the Project's collective activities, including ATER; providing free technical support to help groups fill in application forms and prepare and fund sub-project proposals; simplifying and streamlining application and record-keeping procedures.

Details of the operational measures for gender, youth, inclusion of PCTs and nutrition:

Gender

- Development of a gender strategy and action plan for the Project (based on a specific study to be carried out at the start of implementation - baseline).
- Setting targets for women as a percentage of beneficiaries: 50% of all beneficiaries will be women.
- Allocation of budget for specific gender-related activities, such as Agroecological Logbooks, training on feminism and women's rights, communication interventions to change gender behaviors, among others (see Annex K - Gender, Youth, Nutrition and Social Inclusion Strategy).
- One person from the Project management team (gender and PCT specialist) will be responsible for gender and social inclusion issues (overseeing the implementation of the gender strategy, training staff, and helping colleagues to address gender equality and women's empowerment issues in their operations, including knowledge management, M&E indicators and measuring results). ToR of the gender and PCTs specialist available in Annex I.
- Responsibility for gender integration will be included in the terms of reference of all key project staff.
- In all its activities, IFAD's policy on preventing and combating sexual harassment, sexual exploitation, and sexual abuse (SEA), as well as the federal legislation and regulations related to the subject, including the typification in the Penal Code for sexual harassment and the Code of Professional Ethics for Civil Servants of the Federal Executive Branch, will be complied with. This will be reflected in the terms of reference of all the Project's key employees and service providers. In all agreements and contracts within the framework of IFAD-funded projects, whether by Project staff, contractors, suppliers and other third parties, they must immediately report incidents related to sexual harassment, exploitation, and abuse (SEA) in IFAD-funded activities or operations to the competent authorities in the country, as provided for in national legislation. More details can be found in the Procurement and Contract Management section of this Manual.
- Data will be collected and analyzed disaggregated by sex. In the event of low involvement of women in the Project or unqualified participation, corrective action will be taken.
- The studies carried out by the Project will include a gender perspective.
- Technical Advisory teams must be made up of at least 30% women and there will be an incentive for companies to increase this percentage even further.

Youth

- Development and implementation of a detailed youth strategy and action plan (based on a specific study carried out at the start of implementation - baseline).
- Setting targets for young people as a percentage of beneficiaries. At least 15% of all beneficiaries will be young people, 50% of whom will be young women.
- Budget allocation for specific activities related to young people, such as leadership training, training for Young Communicators, exchanges and learning routes between young people, among others.
- Recruitment of a full-time youth specialist by the Project Management Team (to oversee the implementation of the youth strategy, build staff capacity and help

colleagues integrate youth inclusion considerations into their operations, including knowledge management and measuring results). ToR of the youth specialist available in Annex I.

- Technical assistance teams must be made up of at least 30% young people. There will be an incentive for young people trained in CEFFAs and similar to be hired by entities providing ATER and other types of technical assistance to the communities benefiting from the project.
- Data will be collected and analyzed disaggregated by age.
- The studies carried out by the Project and the Knowledge Management (KM) products produced will include a generational perspective.

Traditional Peoples and Communities

- Development of a detailed Project strategy and action plan for indigenous peoples and traditional communities (based on a specific study carried out at the start of implementation - baseline).
- Definition of targets to reach traditional peoples and communities as a percentage of beneficiaries: 5% of all beneficiaries will be PCTs.
- Allocation of budget for specific activities related to PCTs, such as FPIC a priori and sensitization of technical assistance teams on race and ethnicity, among others.
- Recruitment of a full-time gender and traditional peoples and communities specialist by the Project management team (to oversee the implementation of the PCT strategy, build staff capacity and help colleagues integrate traditional peoples and communities' inclusion considerations into their operations, including knowledge management and M&E). ToR of the Gender and PCTs specialist available in Annex I.
- Data will be collected and analyzed disaggregated by indigenous peoples and traditional communities.
- The Project's studies will include a perspective on the inclusion of PCTs.

Nutrition

- Develop a detailed nutrition strategy with an integrated approach that includes gender, race/ethnicity, youth, and climate resilience for the Project, specifying the activities and methodologies that will be adopted to achieve the nutrition results based on the pathways identified in the Project and on a study carried out at the beginning of the Project (baseline).
- Ensure that all the Project's priority groups, including women, young people, indigenous peoples, and members of traditional communities, take part in training processes on nutrition.
- Ensure that the Project team is trained in issues related to nutrition and the project's integrated approach.
- Ensure that technical assistance teams are trained in nutrition-related issues, including the specific nutritional problems of women and the influence of socio-cultural aspects in the case of indigenous peoples and traditional communities.
- Budget allocation for specific nutrition-related activities, including training for Project staff and partners.
- Recruitment of a full-time nutrition specialist in the Project Management Unit team (to oversee the implementation of the nutrition strategy, build team capacity and help colleagues integrate nutrition considerations into their operations, including knowledge management and performance measurement and evaluation). ToR of the nutrition specialist available in Annex I.
- Specific nutrition indicators will be monitored, and the data will be analyzed regularly.
- The studies conducted by the Project and the knowledge management products developed will include a nutritional perspective.

6. IMPLEMENTATION OF THE COMPONENTS

6.1 COMPONENT 1: Rural development with environmental sustainability based on agroecology

It aims to implement investments in family farming for development, diversification, and adaptation of production capacity and market access, with activities carried out to promote and encourage the adoption of agroecological practices, through ATER, favoring the conservation and preservation of natural resources.

At a territorial level, the Project will work with Local Rural Development Plans (PDRL), with investments in productive development, environmental recovery, and sustainability. These PDRL will be elaborate and implement in collaboration with producer families and with the support of ATER. The Project will also organize training events to raise awareness of public policies at state and federal level. These events are designed to promote access to these public policies, thereby facilitating access to credit and trading on institutional markets. In addition to these activities, PPF II will guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR).

At the level of family farming organizations, investments will be made in processing units, including assistance via Specialized Technical Assistance (STA) to ensure improved business management, marketing, and sustainability.

Cross-cutting themes such as gender, youth, PCT and food security and nutrition will be addressed with the families.

Subcomponent 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty

One activity will be through the development and implementation of PDRLs, with the aim of developing productive and environmental activities with a strong potential to improve/increase production, food security and, as a result, the level of income of families and their climate resilience.

The PDRL's financial resources are "non-reimbursable" and include a monetary or non-monetary counterpart from the beneficiaries for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.). The PDRL will be drawn up for a group of up to 4 neighboring communities, identified and selected based on criteria defined in the IPM and expressing an interest and willingness to work together.

The PDRL will be the instrument signed between PPF II and the community associations and will be elaborated and implemented with the ongoing support of agroecological ATER. It will have a productive section (Productive PD), focused on income-generating activities and improving food security within the family, and an environmental section (Environmental PD), whose activities will cover the territory encompassing all communities organized in the plan.

Productive PD: These will focus on sustainable production intensification, seeking to introduce and strengthen agroecological practices for diversified production. The constant emphasis on diversification of production systems and activities will be central to both the preparation and implementation of the PDRLs, acknowledging the important role diversification plays in enhancing climate resilience, fostering greater dietary diversity within families, and diversifying sources of income.

Each Productive PD will finance up to three different productive activities, thus allowing the reality of family farming to be considered, without, however, raising highly complex risks with a very strong degree of diversification. Support will be given to the main agricultural activities adapted to the Caatinga biome and which form the productive basis for securing families' food and sources of income.

Among the main activities are productive backyards (to produce vegetables and fruit, including Neglected and Underutilized Species (NUS), medicinal plants, etc.), Agroforestry Systems (oriented towards the production of fruit, animal feed for milk and meat

production, honey, wood, etc.), sheep, goat, poultry, pig husbandry or bee keeping, agroecological cotton cultivation, and the cultivation of native fruits such as cashew. Other relevant productive activities could also be part of the Productive PDs. Intercropping and synergies between plant and animal production will be the guiding principles.

Support for initiatives that promote the use, conservation and multiplication of creole seeds and local species is fundamental to the agroecological transition. Supporting these initiatives will therefore be an activity supported by ATER (see further details in Annex I Support for the Development of Creole Seeds, Seed Banks and Participatory Local Plant Breeding). Partnerships will be established with EMBRAPA, institutes, universities, and local organizations with experience in this area.

The productive section of the PDRL could also include non-agricultural activities such as handicrafts, rural tourism, the provision of local services or any other relevant activity, considering that this type of activity shows potential for including women and young people and for creating new jobs and diversifying sources of income.

In synergy with the activities of component 2, and to boost the investments made, there will be funding for access to water and renewable energy technologies, as well as funding for light mechanization equipment adapted to the context.

Environmental PDs: The aim is to collectively manage and restore the environment at the territorial level, regardless of whether it is linked to the main activities of the productive PDs

The Environmental PDs will have specific resources for collective use to encourage the implementation of territorial environmental plans, such as creole seed banks, tree nurseries, reforestation, recovery of springs and degraded areas, recycling, or composting plans, etc. These plans will be managed by an environmental management group, and priority will be given to the participation of Young Environmental Agents¹⁶ (AJA), as key players in introducing environmental education activities and new environmental practices. Synergies and complementarities with the activities and competencies of SEMA (the Secretariat for the Environment and Climate Change) will be sought to implement the activities of the Environmental PD.

The Environmental PDs will be carried out in a participatory manner and will have a strong environmental analysis and territorial management component. The development and planning of the Environmental PDs will also include a participatory mapping of the territory's natural resources, which will include the identification of degraded areas and areas to be protected, water resources, etc. In addition, a rapid diagnosis of agrobiodiversity (animal and plant) will be carried out, identifying the needs resources and support for implementing the different productive plans, valuing local species.

The content of the Environmental PD will mainly derive from the Environmental and Social Management Plans (ESMP), which will be elaborated at the same time as the diagnosis of each PDRL. The ESMP provides a simplified analysis of environmental and social impacts to promote and encourage the adoption of environmental and agroecological practices for diversified production, as well as to monitor and reduce possible risks of environmental impact. These impacts should be analyzed at a territorial or watershed level. The PMU will ensure that technicians receive the necessary training to implement the ESMP. The ESMP will also serve as a diagnostic tool for making specific investments targeted at environmental issues in the Environmental PDs, complementary to the social and economic activities of the Productive PDs.

This type of PD should use the LEADER approach¹⁷, which consists of handing over the planning initiative to the local communities of each rural territory who, organized into Local

¹⁶ Environmental Youth Agent Program, <https://www.sema.ce.gov.br/projetos-e-produtos/programa-agente-jovem-ambiental/>.

¹⁷ <https://redpac.es/leader>.

Action Groups, draw up and implement a development strategy for that territory, taking advantage of its resources.

Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture: Provision of agroecological-based ATER services for 2 years, to support all activities related to: i) the collective organization of beneficiaries, ii) capacity building, iii) social inclusion (considering the Project's target groups), and iv) all technical support related to the preparation, implementation and accountability of the PDRs (productive and environmental). ATER, both face-to-face and remote, will also provide support for the procurement processes for the goods and services provided for in the PDRs, as well as for finalizing them. Issues related to access to public policies as well as marketing in various opportunities (institutional and private markets) will be other key elements of the support provided by ATER to the beneficiaries. Considering the profile of the production units and the local context, the structuring/improvement of municipal agroecological fairs will be an important axis for promoting the marketing of FF products.

These services will essentially be provided by civil society organizations, selected through a competitive process which will consider, among other aspects, knowledge of the local reality, experience and lessons learned in the first phase of the PPF.

In addition to face-to-face ATER activities, field work will be complemented with tools based on Information and Communication Technologies (ICTs), defined on the basis of the Pilot Project financed by Component 3. To this end, a partnership will be formalized between PPF II and EMATERCE for a Digital ATER pilot activity to be developed in a number of municipalities, defined at a later stage. At the end of the pilot, this experience will be evaluated (methodology used, interaction between technicians and farmers, as well as the results) for subsequent replication, providing any corrective measures and expansion to other municipalities.

Training Farmers to Access Public Policies: The subcomponent will carry out training activities in the form of workshops, on the modalities and conditions of access to public policies for family farmers, highlighting those for women, young people and PCT (PRONAF, Low Carbon Agriculture, Crop Insurance, institutional markets such as PNAE, PAA, PAA Milk, land access policies and programs for young people and the Planting Time Program). These events may include activities in partnership with bodies responsible for issuing personal documents (ID, CPF, Certificates, National Family Farming Register (CAF), etc.). Priority will be given to families who have not benefited from other Project activities.

Land and Environmental Regularization: To increase security of access to land as a condition for the development of sustainable natural resource management practices, the Project will finance environmental regularization activities and land regularization activities mainly aimed at traditional peoples and communities. These activities will be financed in partnership with the Ceará Institute for Agrarian Development (IDACE), considering that there is a partnership between IDACE and the State Secretariat for the Environment - SEMA. In addition, the modernization and improvement of the land register system will be supported to enable the complete processing of title registration in the registry offices, thus improving the efficiency of issuing property titles.

In the PDRs, both in the Productive and Environmental sections, innovations developed by the other components of the Project that have met the necessary feasibility and relevance criteria will be incorporated in the PDRs, both in the Productive and Environmental sections..

Subcomponent 1.2. Strengthening the Marketing and Processing of Family Farming Products:

Its aim is to strengthen processing units by implementing Business Plans (BPs) to add value to family farming products and to improve their marketing. Organized groups, family farming associations and cooperatives, as well as other actors involved in the main value chains worked on by the Project will be assisted. The BPs will guarantee investments to adapt/refurbish physical structures, as well as the purchase of machinery for two different

types of units: i) medium/large processing units; and ii) small units. The BPs may also include funding for access to renewable energy and internet access.

Although the subcomponent's main focus is on improving and diversifying income from agricultural production, the investments made through the BP should guarantee accessibility and the supply of healthy and safe food. In this sense, the BP for small units could support the establishment of solidarity kitchens (a strategic activity of *Ceará Sem Fome*), which seeks to add value to FF products, prioritizing access for the population in fragile situations.

In both cases, specialized technical assistance (STA) will be hired by the PMU (companies or civil society organizations) to prepare and implement the BPs. These services (training, workshops, technical visits, exchanges, etc.) will be aimed at strengthening management capacities (financial, administrative, and social) and improving the production and marketing practices of the organizations. The development of marketing strategies will consider all the opportunities available on institutional markets (PAA, PNAE, *Ceará Sem Fome* and the Milk Program) and private markets (local markets and mini-markets, municipal fairs, etc.). The content and contracting of STA services will be defined on a case-by-case basis, depending on the specific needs of each organization.

STA will also be able to support organizations in certification processes and specific identification of family farming products and agroecological production and will be able to work in partnership with EMATERCE in these aspects, with the aim of enhancing agroecological practices.

The STA will normally last two years for large units and one year for small units.

The activities of this subcomponent will be implemented with the support of the Coordination of Support for Livestock Production Chains and the SDA's Coordination of Territorial Development, Cooperativism, Commercialization and Solidarity Economy. Considering that the São José IV Project works with the processing units, synergy and complementarity will be sought whenever possible.

Subcomponent 1.3: Gender, Youth, Food Security and Nutrition This sub-component will aim to promote the empowerment of women and young people, as well as improving food security and nutrition of beneficiary families. The activities will work with three of the Project's cross-cutting themes, strengthening and supporting the mainstreaming of issues related to gender, youth, and nutrition in all the components. Among the women's empowerment activities are gender training, the implementation and monitoring of the agroecological logbook methodology, and childcare circle activities for children, which allow women to participate more. Activities aimed at young people include the planning of youth festivals and caravans, the Young Communicators program, and the training of young leaders, among others. Nutrition activities have focused on exchanges and training, particularly through possible partnerships with the Social School of Gastronomy. This will enable adults and elementary school pupils to learn about culinary practices and gastronomic culture and will respond to the ATER needs of families, women, young people and PCTs in terms of processing and promoting their products, particularly NUS. All of these practices will be integrated into the preparation and implementation of the PDRLs, thus seeking effective implementation and results in terms of food and nutritional sovereignty. The training courses will also include modules on maternal and child health and reproductive health (see details of the activities in Annex K). Based on the experience of PPF I, possible partnerships with the Ceará School of Public Health, the School of Gastronomy and others will be analyzed.

Nutrition. Three types of activities related to nutrition will be developed in this subcomponent:

Activity 1: Provide nutrition education to improve nutrition and maternal and child health in the Project's most vulnerable communities. Given the persistent problems of the double burden of malnutrition in the region, phase 1 of the PPF promoted

nutritional education in community health for community health agents and community leaders. This activity was carried out in partnership with the School of Public Health (ESP), located in Fortaleza and linked to the Secretariat of Health, which focused on modules on health and nutrition, environmental health, mental health, and gender. This second phase will seek to renew the experience (as far as possible, with the School of Public Health). Firstly, the communities with the greatest malnutrition and health problems in the Project's 74 municipalities will be identified. This can be done with the support of the ESP, through the health data it compiles for the region, and by identifying the main barriers to good practices (for breastfeeding, for example). To define the target group for this activity, the initial Project survey conducted by IPECE could also include questions specific to the nutrition and health of mothers and children, to ensure a focus on the most vulnerable groups. The baseline survey that will measure the percentage of women with a minimum diversified diet (indicator 1.2.8) could also be used as an indicator to define the target groups and obtain information on the content of the diet. The beneficiaries will mainly be community health workers, women, young people (reproductive health) and women from PCTs. The training is expected to take place in 8 municipalities (around 150 people will benefit in total). The training will take place in the communities, with selected professional teachers (from the ESP). The final part of the course will include the establishment of an action plan together with community agents. This plan is to be developed in the community to monitor changes in practices in the long term. To ensure the commitment of the participants, it will be important to consult the beneficiaries about the time of year and the hours to be given priority to allow regular follow-up of the courses.

Likewise, the course content will be defined together with the ESP, prioritizing teaching on i) child nutrition to combat micronutrient deficiencies and provide a balanced and proportionate diet respecting the needs of each age, ii) courses to promote exclusive breastfeeding during the first 6 months of children's lives, given that it persists as a health problem, iii) courses on mothers' health (in particular to combat anemia, overweight and obesity), and iv) courses on reproductive health, given the high rates of teenage pregnancy. Ideally, the partnership, course content and methods will be defined in the first year of the Project by the PMU's nutrition officer (and in collaboration with the service provider/ESP) for implementation in the communities from year 2 to year 5 of Project implementation. For this second phase, the focus will also be on identifying and documenting the results at community level, which was a weak point in phase 1.

Activity 2: Providing training in food culture and food processing to enhance local products to improve nutrition and facilitate the empowerment of women and young people. This activity was planned based on the partnership established in phase 1 of PPF with the Ivens Dias Branco Social School of Gastronomy (EGSISB), an institution of the Secretariat of Culture based in Fortaleza. EGSISB held a virtual course on nutrition and health with 108 technicians from the Secretariat for Agricultural Development (SDA) and community leaders, with the aim of stimulating the appreciation of local products and encouraging short value chains, emphasizing relationships of reciprocity and solidarity. The course also covered the themes of the right to health, water, land, traditional knowledge, NUS, food rescue, eating habits, food memories and food preservation.

Under PPF II, the aim will be to renew this type of experience by reaching a larger number of beneficiaries, which will include women, young people and PCTs in the Project area. The beneficiaries will be identified based on the results of the survey carried out by the Institute of Statistics (IPECE) at the start of the Project- The nutrition officer may request the inclusion of specific questions in this survey to substantiate the targeting. It is estimated that the course could target around 600 people from around twenty communities. If the partnership with EGSISB is renewed in this second phase, the training could have a combination of theoretical classes (remote teaching) and practical courses at EGS (24 hours face-to-face for cooking or food processing training) for a total of approximately 100 hours over a duration of 4 to 6 months. The content of the training will be defined by the Project's nutrition officer (in collaboration with EGSISB or another service provider), based

on the teachings of the first training and taking into account priority themes such as valuing NUS, influences on eating habits to improve health, technical support for food processing to enhance economic autonomy and valuing family farming products. The objectives will be to promote nutrition, strengthen and value traditions related to food practices, promote the consumption of local and healthy products by teaching tasty and easily reproducible recipes. Ideally, the training modules would be prepared in year 1 and run from year 2 to year 5, with groups of no more than 30 people each.

Activity 3: Raising awareness of health and food culture among elementary school pupils. For this activity, it is proposed to extend the partnership with EGS, or hire another service provider to develop a course aimed at a young audience; elementary school pupils, to sensitize them on food culture, healthy eating practices and gastronomy. Considering that eating habits are still developing in this age group, it is hoped that the impact of the training could be significant for these pupils. The training is planned for around 10 schools in the Project area, prioritizing schools in poorer municipalities. The students will be divided into groups of up to 30 students, spread over the four years of the Project's implementation. The course will last one day, divided into a theoretical part (adapted for students) and a practical part (cooking class). In the process of selecting the schools, it will be necessary to investigate whether any kind of nutritional teaching already exists in the school, to propose new content as part of the visit to EGSISB. It will also be important to ensure coordination with the training activities provided for in subcomponent 3.2, to offer complementary content, should the target group be the same. It would also be important to include all the school staff, to influence, for example, school menus and food practices.

Gender. A Gender Plan will be drawn up in the first few months of Project implementation by the PMU's Gender and PCTs specialist to detail the general strategy and implementation methodology for all the activities in this subcomponent related to gender equity and women's empowerment. At least four types of activities will be developed:

Activity 1: Implementation of the Agroecological Logbooks. The Agroecological Logbooks (ALs) are an innovative and successful political-pedagogical instrument for women's economic empowerment that has already been widely tested within the framework of PPF I. The LAs are implemented to measure, value, and give visibility to women's fundamental contributions to the family economy and, consequently, to community development. They also aim to promote greater self-esteem among women and demonstrate how they contribute to a healthy, diversified, and safe family diet through the production in agroecological backyards. As a result of valuing women's contributions to the family economy, the aim is to change power relations in the domestic and community spheres. The Agroecological Logbook is a simple-to-use tool with four columns for organizing information about women's production. It records what has been sold, donated, exchanged, and consumed on a daily basis, based on everything that is grown in the spaces where women live in family and peasant farming units, from agricultural production to handicrafts and processing. During the implementation of PPF I, the Logbook proved to be an efficient tool for monitoring women's production, including valuing production that does not involve monetary exchange and was previously invisible, such as self-consumption, which plays a fundamental role in guaranteeing food and nutritional sovereignty. The role of the Technical Assistance is to mobilize the beneficiaries, train them in the use of the ALs and follow up and monitor their completion. Therefore, in addition to promoting women's socio-economic empowerment, the ALs also play a role in qualifying TA activities as an instrument for intervening, constituting new indicators for the Project's activities. The implementation of the complete AL Methodology includes the costs of training, implementation, and M&E.

Activity 2: Gender and Diversity training for beneficiaries. PPF I consolidated a successful Gender methodology, with ethnic-racial and generational sections, which should be replicated in the second phase and updated to include a broad diversity perspective

that includes promoting the empowerment of Afro-descendants, PCTs and the LGBTQIAPN+ community. The main objectives of the training are: i) to develop the capacities of the target groups so that they can play an active role and be socially recognized in the economic and productive spheres of the family and community; ii) to promote voice and influence in rural institutions and organizations, both of women and of PCTs and the LGBTQIAPN+ community; and iii) to promote debate on the sexual division of labor, to foster a fairer division of the workload between men and women; iv) to value and disseminate traditional knowledge, practices and ways of life and to discuss issues related to racism and sexual orientation. During the training sessions, the issue of Violence against Women and Domestic Violence will be addressed, providing knowledge and information about the Maria da Penha Law, how to access the Network for Combating Violence against Women and how to file complaints, with the aim of preventing violence against girls and women. The training sessions will be held in the territories. The training program will take an intersectional approach, considering how racism, patriarchy, heteronormativity, and other exclusionary structures generate dynamics between multiple axes of subordination - gender, race/ethnicity, sexual orientation, and social class.

Activity 3: Childcare/education activities to enable women to participate in project activities. The Project will offer childcare/education to ensure women's participation in the Project's activities, such as the Gender and Diversity Trainings. The activities are conducted in a physical space provided by the community with one or two educators/facilitators. The costs of the activity are as follows: i) booking materials and resources for activities; and ii) paying for childcare services. The activity is built on a dynamic methodological approach that strengthens relationships between generations, promotes debate on gender equality in family and community networks and conveys positive messages about the semiarid region and sustainable practices that are developed by different organizations and communities within this ecosystem. In addition, this activity helps to reduce women's work overload due to childcare and encourages many communities to play a role in collectively sharing the task of caring, normally associated with the private sphere. Another positive aspect is the promotion of gender-transformative education, which allows stereotypes, attitudes, norms, and practices to be transformed, generating critical awareness of gender inequalities in both children and their educators.

Activity 4: Support for the Gender Commission. During the first phase of the PPF, the creation of the intersectoral Gender Commission, with the active support of the Project, played a fundamental role in the management of gender, race and ethnicity activities. The Commission was consolidated as a body for integrating and sharing the processes developed at different levels - in the communities, by the Technical Assistance teams and by the PMU. The Gender Commission has fostered: i) greater knowledge of the reality of women, gender relations and traditional peoples and communities; ii) a better assessment of the feasibility of the proposed activities; iii) the identification of the limits and possibilities of the Project's activities; iv) the leveling of concepts, methodologies and practices adopted by each community and by the PMU; and v) the improvement of the Agroecological Logbooks methodology. Through political dialogue, the Gender Commission has created a space for the political and professional training of its members, helping to maximize the efficiency and effectiveness of women's empowerment initiatives through the appropriation of gender concepts and methodologies in the planning, monitoring and evaluation processes and the co-responsibility of the activity of the PMU and the Technical Assistance entities. The second phase of PPF II should continue to support the Commission.

Youth. A Youth Plan will be drawn up in the first few months of Project implementation by the PMU's Youth specialist to detail the general strategy and implementation methodology for all the activities in this subcomponent related to the socio-economic and political empowerment of young people. At least three types of cross-cutting activities will be developed for rural youth in the Project area:

Activity 1: Vocational training in agricultural and non-agricultural activities. In the area of intervention, there is an exodus of young people in search of better job and income opportunities in the cities, challenging the process of rural succession. In this context, non-agricultural productive activities have become an important income-generating alternative for part of the rural population and could help young people stay in rural areas. In this sense, PPF II will promote vocational training for young people in activities such as: information technology, mechanics, rural tourism, maintenance of machinery and equipment, tailoring, handicrafts, gastronomy, among others. The Project will also offer vocational courses that will enable young people to diversify their sources of income and promote better conditions for success in agricultural production for those who decide to take up agricultural activities. Courses will be offered in agricultural subjects such as horticulture, beekeeping, poultry husbandry, rural administration, among others. To implement training in agricultural and non-agricultural activities, the Project will seek to build partnerships with institutions such as SENAI, SEBRAE, PRONATEC, SENAR, EMBRAPA, universities and teaching and research institutes.

Activity 2: Training Young Communicators. PPF II will train young rural people to become Young Communicators. Training will be offered in subjects such as photography, audiovisual, interview techniques, cordel, digital marketing, project development and citizenship. With the skills developed, the Young Communicators will be able to help record and monitor Project activities, produce audiovisual and printed materials and act as social mobilizers in their communities. This initiative will also allow young people to develop their vocation and even start practicing a new profession. The activity will involve: (i) the selection process for the young people; (b) the training course; (c) an exchange event and a final meeting. During this process, the Young Communicators will be encouraged to produce communication materials about the Project's experiences, good practices, etc. and will be guided in their quest to have these "products" included in communication channels such as blogs, YouTube channels, community radio stations, among others.

Activity 3: Youth festivals and caravans. During the first phase of the PPF, a solid base of partnerships was built for the development of youth empowerment activities, such as the Youth Festival and Caravans, which involved different institutions working to include young people, such as Agricultural Family Schools (EFAs) and universities, as well as associations and unions. The Festivals and Caravans create spaces in which young people gain visibility by demanding their rights and recovering their peasant identity. These were moments that also served as an opportunity to bring together young people from different places and social situations, but with similar needs and demands. In terms of youth mobilization, the creation of youth groups deserves to be highlighted. In the context of Festivals and Caravans, young people strengthen unity, collectivism, and the exchange of experiences. These initiatives should therefore be replicated and scaled up in the second phase of the PPF.

6.2 COMPONENT 2: ACCESS TO WATER, SANITATION AND SOCIAL TECHNOLOGIES

This component aims to make investments in the areas of water for domestic use and agricultural production, household sewage and renewable energy.

Technical assistance provided for families and communities will facilitate knowledge sharing on systems/equipment maintenance, alongside promoting awareness of best practices for efficient water use in domestic, hygiene and sanitation contexts, to maximize the impact on nutrition and community health.

Small infrastructures for accessing and storing water for agricultural production will be carried out through this component. Whether for community or family use, the investments will guarantee consistent and high-quality access to water for human consumption or agricultural production, as well as reducing soil and water contamination with waste produced in family units. Efficient water use practices and technologies will be systematically implemented to adapt to climate change.

To support innovative solutions, the Component will finance the dissemination of sustainable innovations developed under subcomponent 3.3.

Subcomponent 2.1. Rural Community Basic Sanitation

The aim of this subcomponent is to plan and implement basic rural sanitation at community level, to improve the environmental conditions and the quality of life of families, considering collective solutions for accessing water and sanitary sewage and gray water reuse systems. In addition, adequate disposal facilities and processes will be provided to enable the collection and recycling of some of the solid waste generated by these communities.

Investments will be made to guarantee access to drinking water in sufficient quantities and proper quality for human consumption.

Water Supply Systems (WSS)

Implementation of new systems or improvements, extensions, and rehabilitation of existing WSS.

For WSS that will be run from existing water sources, these can be underground or surface, using the sources shown in the table below:

MANANCIAL	SOURCE
UNDERGROUND	Wells and springs
SURFACE	Weirs, lakes, streams, rivers, and reservoirs

To run the WSS, electricity is needed for pumping at the catchment, at the raw water and treated water pumping stations, washing filters and dosing chemicals. With the high cost of electricity, one of the options is to use solar energy.

WSS consists of the following stages: collection, adduction, treatment, reservoir, distribution, and household connections. However, in the Project areas, the systems will differ in terms of treatment technology. The technology depends on the quality and type of water source and will be chosen during the design of each project. After treatment, the water will be reserved and distributed by gravity through the distribution network and each family will receive the water in their home through the building connection with water meters. With the water meter, the amount of water consumed by the family can be read, thus ensuring the best use of the water resource.

The water treatment technologies that will be worked on in PPF2 will follow the standard for rural projects and works in the state of Ceará, known as the Rural Standard:

- **Simple disinfection:** Technology based on chlorination, which can be done using a tablet chlorinator or dosing pump;
- **Direct upward filtration:** Water treatment technology consisting of the following unit operations: coagulation, upward filtration, and disinfection. Coagulation is done by applying the coagulant via a dosing pump near the rapid mixing unit;
- **Oxidation followed by upward filtration:** Variation of direct upward filtration, where when the raw water has a concentration of iron, pre-oxidation is required before the whole process;
- **Double filtration:** Water treatment technology consisting of the following unit operations: coagulation, upward filtration, downward filtration, and disinfection. Coagulation done by applying the coagulant through a dosing pump near the rapid mixing unit;
- **Full cycle:** Water treatment technology comprising the following unit operations: coagulation, flocculation, downward filtration, and disinfection. Coagulation is done by applying the coagulant via a dosing pump near the rapid mixing unit.

The Standard developed follows the Brazilian Standards (NBRs) elaborated by the Brazilian Association of Technical Standards (ABNT) and the experiences accumulated by the SDA, the Secretariat of Cities and the Water and Sewage Company of the State of Ceará (CAGECE) in the execution of Programs that design and implement water supply systems in rural areas.

The choice of technologies to be used in rural sanitation in Ceará is based on the simplicity of operating the systems, because in the multi-community management model, SISAR, the operators are local residents, affiliated to the Local Community Association, who volunteer to work as system operators and their remuneration is divided among the families in the locality where they work. The operators are trained by SISAR, but the Community Association must monitor their work on a daily basis.

Collective WSS should be operated by community associations in collaboration with SISAR, which is already a consolidated model, as can be seen in the study in Annex VII of this document. The economic sustainability of these systems will be guaranteed by SISAR's activities, mainly due to the existing tariff structure. The other activities must be operated and maintained by the community associations and cooperatives that benefit from the Project.

When a WSS is built and does not have specialized maintenance and operation, it begins to deteriorate within a few years, requiring a new investment by the state. PPF II therefore proposes not only to build new systems, but also to rehabilitate systems so that the population can once again be supplied, or to improve and expand other WSS in operation.

WSS can be rehabilitated when, due to time and use, the systems deteriorate or maintenance problems arise (e.g., broken distribution network), demanding repairs. This community will be assessed by the SDA, both physically in terms of the system and the association. If the association expresses an interest in shared management and the demand does not exceed the per capita value of the Project, this community can be assisted with the rehabilitation of its system.

As an example of the improvements and expansion of the WSS, the community has grown and needs a new reservoir, an expansion of the distribution network, an increase in the diameter of the pipes and new treatment units.

Community reuse of gray water:

When families benefit from a water supply, the generation of effluents begins and the Project will work with some communities on a pilot basis with a community graywater reuse system, so that less contaminated water is discharged into the environment. There will be a grey water collection network that will reach an effluent treatment plant and the treated effluent will be used to irrigate productive areas, mainly fodder production.

The system will capture gray water waste from a number of homes, and, after treatment, the resulting water can be used to irrigate communal areas, mainly for the production of forage species, which will ensure that livestock is fed during the dry season. The community gray water reuse system could be adopted in places where there is an agglomeration of homes, mainly in agro-villages in settlements, for example. This way, less contaminated water will be discharged into the environment, and, in addition, it will be used to irrigate productive areas.

As this is a pilot-scale project, it needs to be monitored by the SDA for at least a year with analysis of the treated grey water, soil analysis and analysis of the plant species produced from the grey water treatment, in accordance with current national legislation. After the pilot monitoring period, the grey water drainage systems must be operated and maintained by the community associations benefiting from the project. The cost of operation and maintenance must be covered by the associations.

Recycling household waste

To reduce the improper disposal of household waste within communities, which can lead to contamination of the soil, water sources and the environment in general, activities will

be implemented and/or supported with associations and cooperatives, including the development of handicraft groups, led mainly by women and young people, to reuse waste and provide a new source of income for families. As an example, machines/equipment will be purchased for associations to make brooms from pet bottles or to strengthen recycling cooperatives with good practices.

The solid waste recycling activities must be operated and maintained by the community associations and cooperatives that benefit from the Project. The cost of operation and maintenance must be covered by the associations or cooperatives.

The Projects must be developed under the guidelines of the SDA and, specifically for collective water supply systems, the standards for the design and construction of WSS in rural areas in the state of Ceará must be followed. The management of the installed infrastructure will be the responsibility of the community associations, federations of associations and/or cooperatives.

The table below summarizes the Matrix of Responsibilities for implementing rural community sanitation.

Activity / Responsible	SDA	Association/ Cooperative	SISAR
Project preparation			
Preparation of the ToR for contracting the preparation of the projects.	X		
Drawing up a <i>checklist</i> for project analysis.	X		
Hiring a project designer	X		
Project analysis	X		
Final approval of projects	X		
Construction works and purchase of equipment			
Drawing up the ToR for contracting the construction work	X		
Hiring construction companies	X		
Obtaining licenses and permits	X		
Regularization of land for construction	X		
Construction supervision	X		

Provisional and final acceptance of works	X		
Drawing up ToRs for equipment purchases	X		
Purchase of equipment	X		
Operation of infrastructure and equipment			
Rural community water access - implementation		X	X
Rural community water access - rehabilitation, improvements, and expansion		X	X
Community water reuse for production		X	
Solid waste recycling activities		X	
Maintenance of infrastructure and equipment			
Rural community water access - implementation		X	X
Rural community water access - rehabilitation, improvements, and expansion		X	X
Community water reuse for production		X	
Solid waste recycling actions		X	

Subcomponent 2.2. Social Technology for Access to Water and support for Production

The aim of this subcomponent is to implement social technologies at the family level, such as first-water cisterns (human consumption), second-water cisterns (agricultural production), reuse systems and trench dams (underground dams). In addition to these activities, infrastructures for sanitation solutions will also be implemented, including a complete household sanitation module (toilet with treatment), biodigesters and eco-efficient stoves for generating energy, for example.

Social technology refers to a collection of transformative techniques and methodologies developed and/or applied through interaction with the community and subsequently

adopted by them. These solutions aim to address social inclusion and enhance living standards. We can divide them into a few groups: (a) Products, devices, or equipment; (b) Processes, procedures, techniques, or methodologies; (c) Services; (d) Organizational social technologies; (e) Management social technologies.

The National Rural Sanitation Program (PNSR) also underscores the importance of considering, during the planning and project development stages, the social and sanitary function of the technology to be adopted, as well as cultural, gender, age structure and special needs considerations.

The technologies and innovations that will be used have important characteristics that guarantee a positive impact on the lives of the Project's beneficiaries and on the environment; among them, we highlight: (a) they are sustainable alternatives that ensure the families' food security and nutrition; (b) they are solutions with a high social impact and low implementation costs; (c) they are solutions that are easy for the families to assimilate; (d) they are solutions that can be maintained and operated by the beneficiaries themselves after the end of the Project.

Social technologies for capturing and storing rainwater

Social technologies, both for human consumption and for agricultural production, are very well accepted in the semiarid Northeast - and especially in the semiarid region of Ceará. The executive projects for such initiatives are already known to the SDA, which facilitates implementation, project supervision, and handover to families. They provide a simple, low-cost but very efficient alternative for storing water for isolated families or in areas of low population density.

Cisterns for human consumption (or first water) guarantee Project beneficiaries the right to quality water, as well as to reducing the impact of severe droughts. The main objective of rainwater management technology is to reduce rainwater runoff by temporarily retaining it in an appropriate place and minimizing the risks of vector proliferation. To this end, the following conditioning factors for solutions stand out: slope of the land, permeability of the soil and depth of the water table. The proposal of technological alternatives in this subcomponent refers to the home, more precisely to the peri-home, which covers the external area adjacent to the home. The storage of rainwater in homes can and should be associated with the supply for human consumption, due to its better quality, which makes it easier to treat.

During the visits for the preparation of the Paulo Freire II Project (2023), some first-water cisterns were observed to have cracks. It was not possible to identify whether this was apparent or structural damage. However, during the preparation phase of the new cistern projects, construction materials and management procedures on the part of the families (post-work) should be analyzed to guarantee that the cisterns will not be damaged due to lack of water or misuse by the families. These points should be included in the checklist for project preparation and family training events.

Production (or second water) cisterns make it possible to store water during rainy periods for agricultural production purposes, both for "irrigating" small agricultural areas and for providing drinking water for animals. With a capacity of 52,000 liters, this reservoir stores water for months to meet demand during the dry season, allowing agricultural production to continue.

Trench dams (underground dams) are small infrastructures installed in temporary streams with the aim of damming water from surface runoff and from within the soil.

Sanitary modules and gray water reuse

Increasing sanitation coverage by installing sanitation solutions (toilets) with sewage treatment will have an impact on the health of families and improve sanitation conditions in communities. The strategy of applying grey water reuse technologies will increase the resilience of communities to extreme climatic events such as prolonged droughts or periods of below-average rainfall. The water reuse system is a Social Technology that

increases the availability of water for farming families. In addition, the collection and treatment of gray water is an important advance for the environment and public health. The system collects, treats, and reuses household gray water (shower, sink and laundry) that previously went straight into the ground. After the filtering process, this water can be used to strengthen productive agroecological backyards, contributing to food security and nutrition, as well as generating income.

One of the first measures to get to know and map the reality of families regarding sanitation should be to carry out a Sanitary Survey (Annex IV) analyzing the availability of toilets and treatment systems for gray and black water. Once the Sanitary Survey has been carried out, the Project Coordinator will have an accurate understanding of the number of families who will need to receive complete sanitation improvements: a complete bathroom with treatment. In the tables below outlines the main points about an important and widely used type of treatment and final disposal of domestic sewage: septic tank + sinkhole.

Septic Tank	
Definition:	<ul style="list-style-type: none"> • Cylindrical or rectangular prismatic horizontal flow unit. Treatment of sewage by sedimentation, flotation, and digestion. They can be single chamber or series chambers. • The chamber stores the sewage for a certain period, the solid material settles and the solids and fats (scum) float. The sedimented material forms the sludge. • It must not receive rainwater and requires additional treatment. • Accumulated sludge and scum must be removed at intervals defined in the Project.
Features	<ul style="list-style-type: none"> • It can be used to treat black water, gray water, or domestic sewage. It has a low maintenance frequency. • It can be individual or for a group of houses. Sedimentation during the time the sewage is retained can reach 70%, forming sludge. • Area needed for up to 5 people: 1.5m² to 4m² .
Factors to consider	<ul style="list-style-type: none"> • Rate of sewage infiltration into the soil. • Availability of space. • Terrain slope. • Depth of the water table. • Nature and depth of the bedrock. • Variation in sewage flow. • Distance from surface water. • Distance from springs. • No need for pre-treatment.
Technical alternatives for <u>post-treatment</u>.	<ul style="list-style-type: none"> • Sinkhole • Sand filter and filtration trenches. • RAFA (DAFA). • Biodigester. • Anaerobic filter. • SAC

	<ul style="list-style-type: none"> • Vermifilter/Banana circle
Alternatives for final disposal	<ul style="list-style-type: none"> • Surface water • Soil: Drain; Infiltration Trench.

Source: Domestic sewage treatment in isolated communities: a reference for choosing solutions. Campinas, SP.: Biblioteca/Unicamp, 2018.

Sinkhole	
Definition:	<ul style="list-style-type: none"> • Vertical infiltration unit that passes through several layers of soil with different characteristics. • Because it is vertical, it is more difficult to maintain the aerobic process, which is why clogging of the inner walls occurs earlier. • Its use is only favorable in areas where the aquifer is deep and where it can guarantee a minimum distance of 1.50m between its bottom and the maximum aquifer level. • NBR 13969 suggests building at least two drains for alternate use, as there is a possibility of clogging. • The degree of water percolation must be estimated.
Features	<ul style="list-style-type: none"> • If there is a need to reduce the useful height and/or diameter due to the proximity of the aquifer level, the number of units can be increased. The distance between the walls must be at least 1.50m and the smallest internal diameter 0.30m. • It is important to assess the rainfall in the area to plan drainage and lay filtering material to protect the walls of the drain. • In places where the water table is not very deep, several drains or infiltration trenches should be installed. •
Factors to consider in selection	<ul style="list-style-type: none"> • It should be at least 30 meters away from water sources. • The procedure for estimating the percolation capacity of the soil can be found in Annex-A of NBR 13969/1997 - item-A.2. • There should always be a record of the water table in the areas to be planted.

Source: Domestic sewage treatment in isolated communities: a reference for choosing solutions. Campinas, SP.: Biblioteca/Unicamp, 2018.

During the Sanitary Survey, families who are familiar with green technologies can be identified. In this case, the Banana Tree Circle can be installed instead of the sinkhole as final disposal. The table below summarizes the main characteristics of this technology.

Banana tree circle	
Definition	<ul style="list-style-type: none"> • A banana circle is a circular trench filled with permeable material. • Treatment takes place through the microbial degradation of organic matter. • The circle of banana trees is filled with branches and straw (or banana seedlings). • There are no norms for construction standards. •
Features	<ul style="list-style-type: none"> • Type of treatment optional for individual treatment and for residents who are familiar with ecological technologies. • Area needed for up to 5 people: 3 to 5 m². • Treatment for gray water or complementary treatment for domestic sewage. • Requires pre-treatment.
Technical alternatives for <u>post-treatment</u>.	<ul style="list-style-type: none"> • There is no post-treatment.
Alternatives for final disposal	<ul style="list-style-type: none"> • Surface water. • Soil: Drain; Infiltration Trench.

Source: Domestic sewage treatment in isolated communities: a reference for choosing solutions. Campinas, SP.: Biblioteca/Unicamp, 2018.

During the technology selection phase for sanitation solutions and greywater reuse, several limitations add to the challenges in choosing the best technological alternative in low population density areas. This demands a thorough assessment and underscores the necessity of technical knowledge about the units that may be implemented. The limitations can be physical, environmental, socio-cultural, and managerial. They have been listed below and for each of them we have highlighted the most important points to be observed when analyzing the current situation of the communities that will receive sanitation solutions. As a general lesson learnt, sanitation activities (whether water supply or sewage) in areas of low population density - villages, rural locations - require a different approach and analysis from more populated areas: districts, municipal headquarters.

Limitations	The main points to be observed by the designer and the project team when implementing individual sewage and grey water reuse solutions.
Physical	<ul style="list-style-type: none"> • Layout of the houses in the area where the system will be installed; • Sanitary conditions in the homes: bathrooms, kitchen, laundry tanks (inadequate hydro-sanitary installations, outside the normative standards); • Conditions of the access road to the locality/region to be covered by SES; • Number of inhabitants; • Climate (rainfall); • Soil (type, granulometry, permeability and impermeability); • Topography; • Water table level; • Type of vegetation; • Existing WSS for human consumption and/or animal watering.
Environmental	<ul style="list-style-type: none"> • Environmental Conservation Units; • Permanent Preservation Areas (APP); • Vegetation cover; • River basins; • Surface springs / underground springs; • Springs.
Socio-cultural	<ul style="list-style-type: none"> • Cultural patterns; • Type of bathroom (shower, washbasin), sink for washing dishes, tank for washing clothes; • Type of building (owned or rented) / n° of rooms; • Education / income; • Traditional populations; • Community organization; • Disposal of grease trap material, septic tank scum and treated sludge from treatment units; • Understanding the reuse of treated sewage.
Management (post-work)	<ul style="list-style-type: none"> • Family involvement; • The beneficiary's understanding that they must allow access - when necessary - to facilities for the operation, maintenance, and monitoring of sewage system technologies; • The land aspects involved in the interventions; • The preparation of appropriate document templates for these interventions.

The limits imposed by environmental legislation also have an impact on the choice of sewage treatment solution, the disposal of effluent and sludge and the reuse of treated sewage and should be analyzed and discussed when preparing projects and choosing technologies. An important social technology in sewage reuse is the BET: Evapotranspiration Basin. In this technology, if certain usage criteria are respected, there is no need to remove the sludge, but some care is required on the part of the family for the system to function correctly. Families should be consulted beforehand about whether

they want to use this technology. Training events and exchanges of experience with families already using these technologies are of fundamental importance when future beneficiaries are choosing their technology.

The Evapotranspiration Basin consists of a waterproofed pit or tank, equipped with an anaerobic chamber, filtering layers and a surface suitable for cultivation, and thus intended for the treatment and reuse of fecal water - from the toilet, on a family scale. There are various BET models available in the literature, also known as banana pits, green pits, eco-pits, evapotranspiration tanks, bioseptic pits, plant bioremediation or bioseptic beds.

Treatment in the BET takes place through the microbial degradation of organic matter. It starts inside the chamber and continues through the biofilm, passing through the pebbles and gravel as the pit is refilled, there is also physical retention in the sand layer and, finally, the absorption of water and nutrients by the plant roots, without the risk of contaminating the fruit. High transpiration in the bed prevents the BET from overflowing.

It is recommended to use crops with short roots (radicular) to avoid damage and broad leaves that allow for greater evapotranspiration potential, such as banana and papaya. BET is used to treat black toilet water.

Eco-efficient stoves

The installation of eco-efficient (geo agroecological) stoves for food preparation. These stoves have the dual benefit of reducing the consumption of firewood, thereby reducing the pressure of deforestation on the Caatinga and the emission of greenhouse gases, and of lowering the emission of toxic smoke in the food preparation environment, thereby lowering incidences of cardio-respiratory problems in women and children.

Eco-efficient stoves represent an essential innovation in the field of home cooking and the productive use of biomass; the pillars of this model consist of thermal insulation, regulating the fire, maintaining a constant cross-sectional area, properly managing the air flow to minimize the production of smoke and charcoal, incorporating support for firewood, implementing a chimney to remove smoke and maximizing heat transfer.

The following resources are needed to carry out the project:

- Two-burner iron griddle;
- Autoclaved cellular concrete;
- Combustion chamber made of plates and refractory mass;
- Ceramic chimney;
- Firewood holder;
- Bricks and ordinary cement;
- Ceramic tiles for covering the stove;
- Circular saw for precise cutting of materials;
- Spray paint in black to finish and protect the stove;
- Skilled bricklayers and helpers;
- Uniforms for the workers; - Personal Protective Equipment (PPE) to ensure the safety of those involved.

Interested local masons will be trained by the project to build and repair the stoves; most of the repairs can be carried out by the users themselves, since they will be trained to do so; however, over the years some of the parts will become damaged and can easily be replaced by local masons.

Biodigesters

The main purpose of biodigesters is to produce cooking gas. Their use allows for a significant reduction in the consumption of firewood from the native forest, as well as being a substitute for the purchase of gas cylinders, generating savings for families. They will be implemented in family units that have raw materials such as animal waste and agricultural waste. The liquid and solid residues generated after the decomposition of

organic matter are collected to be used as organic fertilizer and the biogas produced is used as fuel for residential stoves.

The use of the biodigester will bring environmental, social, and economic gains to the community, including: the preservation of local vegetation; the reduction of soil and water contamination; and the use of biofertilizers and fertilizers in vegetable gardens and fields, helping to increase production.

The table below shows the main characteristics of a biodigester.

Biodigester	
Definition:	<ul style="list-style-type: none"> • A type of tank made up of a closed chamber and a gasometer that stores the biogas produced, which can be used for cooking gas, lighting, and heating water. These are units designed to use the tank plus anaerobic filter system in the same chamber and to use biogas. • There are several models: the Chinese model is widely used in Brazil; the semiarid (sertanejo) model is an adaptation using concrete slabs and the Canadian model is a pond covered in canvas. There are also prefabricated models with rolled pebbles, divided into layers of different granulometries. • Complementary treatment must be provided; • Its dimensioning is not specified in NBR 13969/97.
Features	<ul style="list-style-type: none"> • The advantages compared to other alternatives is the use of biogas, however, careful consideration must be given to criteria regarding construction and operation. • Excess sludge can be removed every 2 to 4 years. • Care must be taken during operation. • The type of sewage to be treated is brown water or domestic sewage.
Technical alternatives for <u>post-treatment</u>.	<ul style="list-style-type: none"> • Anaerobic filter. • Sand filter and filtration trench. • Constructed Lagoon Systems (SAC).
Alternatives for final disposal	<ul style="list-style-type: none"> • Surface water. • Soil: Drain; Infiltration Trench.

Source: Domestic sewage treatment in isolated communities: a reference for choosing solutions. Campinas, SP.: Biblioteca/Unicamp, 2018.

The implementation projects must be developed under the guidance of the SDA and must always be discussed with the families before their final approval. The SDA will be ultimately responsible for the projects and the works, which can be carried out in cooperation with public and/or private partners. Entities will be contracted to implement the technologies, train the families, and support the beneficiaries. Contracts may be awarded through public calls for tender and/or public tenders, depending on the object to be tendered.

The infrastructure will be of an individual (family) nature and must be operated and maintained by the beneficiary families. The cost of operation and maintenance must be

covered by the families and in some cases can be guaranteed with income generated by the implementation of the new technologies themselves.

The families will receive technical assistance and take part in various training events during the project's implementation. During these events, families learn to incorporate the new technologies into their routine, get sensitized and trained to use the new equipment and should, at the end of the training events, be confident in managing the infrastructure that will be installed.

The table below summarizes the Matrix of Responsibilities for Implementing Social Technology for access to water and support for production.

Activity / Responsible	SDA	Famil y	Associat ion	SIS AR
Project preparation				
Preparation of the ToR for contracting the preparation of the projects.	X			
Drawing up a checklist for project analysis.	X			
Hiring a project designer	X			
Project analysis	X			
Final approval of projects	X			
Construction				
Drawing up the ToR for contracting the work	X			
Hiring construction companies	X			
Obtaining licenses and permits	X			
Regularization of land for construction	X			
Construction supervision	X			
Provisional and final acceptance of works	X			
Infrastructure operation				
Cistern for human consumption (first water)		X		
Cistern for agricultural production (second water)		X		
Family water reuse for production		X		
Complete home sanitary module		X		
Eco-efficient stove		X		
Biodigester		X		

Underground dam		X		
Infrastructure maintenance				
Cistern for human consumption (first water)		X		
Cistern for agricultural production (second water)		X		
Family water reuse for production		X		
Complete home sanitary module		X		
Eco-efficient stove		X		
Biodigester		X		
Underground dam		X		

Note in the table above that for the implementation of subcomponent 2.2 Social technology for access to water and support for production, families must be involved from the outset in the discussion of projects, as they will be responsible for the operation and maintenance of the structures and equipment that will be installed by the project.

Support for Production and Innovation

Three types of innovations will be supported: i) the formation of new micro-enterprises and the growth of existing micro-enterprises, ii) pilot projects to encourage research, and iii) digital services.

The Project will support investment in micro-enterprises that provide machinery, services or products customized to the local context, to help family farmers' agroecological production, thus strengthening rural entrepreneurship. Examples: machinery adapted to small producers, products derived from native/traditional species, bio-inputs (soil nutrition, bio-insecticides), efficiency in the use of water, treatment of solid waste, equipment for processing and adding value, etc.

The Project will finance the associated costs of screening, evaluating, and providing technical assistance to enterprises in all the Project regions, so that the selected activities are spread throughout the territory.

An incubator will be set up to help develop each enterprise's business model and facilitate access to markets. The enterprise will be financed by a competitive investment fund, which will provide up to R\$50,000 per enterprise, depending on the financing needs. The incubator will follow development models already present in the state, such as SEBRAE. The priority themes for the selection of enterprises are:

- Agroecological Markets and Local Biodiversity: Promoting nutrition based on local biodiversity, through the development of products derived from native/traditional species, the extraction of oils and essences, the creation of agroecological fairs, greengrocers, restaurants, and snack bars, etc.
- Adapting to Climate Change: water harvesting and efficiency technologies, climate comfort, etc.
- Access to renewable energies: Financing and installation of solar panels, heat pumps, energy efficiency works, reduction in the use of firewood, biodigesters, etc.
- Soil nutrition and integrated pest/weed management: manufacture of organic fertilizers and products used in the biological control of pests and weeds, such as the production of green manure seedlings and seeds, inoculation of natural enemies, production of compost, bio-sludge, and other bio-inputs.

- Mechanization for small producers: Adapted mechanization for agroecological and agroforestry family farming, such as trillers, forage palm choppers and feeders, long-arm pruning shears, woodchippers and other small equipment. Enterprises that share or rent out machinery and equipment will also be supported.
- Technologies for Cooperatives and Associations: machines and equipment for cooperatives and associations, such as pulpers, dehydrators, dryers, mills, packers, and processors in general, as well as recycling machines such as waste separators and processors.

The enterprises or teams selected will receive the following benefits:

- i. Financing of up to R\$ 50'000,
- ii. Technical assistance,
- iii. Business and market-oriented mentoring,
- iv. Development of business plans,
- v. Support in design and visual communication,
- vi. Networking and partnership opportunities

Enterprises will be selected based on exclusion and prioritization criteria. The exclusion criteria are mandatory. Applicants that do not meet these requirements will be eliminated:

- 1) Social Criteria: The enterprise must have social and environmental impact as its main objectives, aiming for low prices for farmers and fair pay for workers.
- 2) Competitiveness: The enterprise should not aim to gain market power through mergers and acquisitions (buying out competitors).
- 3) Intellectual property and the right to repair: The enterprise should not seek to obtain private patents that hinder access to technology by registering any invention in the public domain. The enterprise should publish its technological advances on freely accessible platforms. Machinery and equipment should be designed in such a way that they are easily repairable using accessible technologies and with easy replacement of parts, thus avoiding the user being forced to buy a new copy.
- 4) Economic sustainability: The enterprise must prove that there is a demand for its service/product in the long term.
- 5) Environmental sustainability: The enterprise must show that its product/service does not generate significant environmental impacts (GHG emissions, waste, etc.).
- 6) Local Impact: Enterprise members come from the project regions.

Prioritization criteria are non-mandatory but desirable criteria and can therefore be used as a qualifying criteria:

- 1) Valuing and integrating indigenous and traditional/ancestral knowledge and technologies.
- 2) Focus on young people and young women. We suggest quotas of 50% for women and 50% for young people, with 50% of young people's places reserved for young women.

The evaluation committee responsible for selecting the enterprises will consist of members of the public authorities, universities, companies and farmers. It should prioritize the presence of women and people from the Project areas.

Public initiative projects: PPF II will also support pilot projects and the expansion of projects led by the public initiative, such as municipalities and sanitation agencies. These initiatives include:

- i. Urban selective collection with the production of compost for rural areas, as seen in the Itapipoca town hall,

- ii. Collection of dry waste in rural areas,
- iii. Composting system for rural families,
- iv. Biodigesters for human waste with adapted toilets,
- v. Reuse of composted sewage sludge in agriculture, as exemplified by CAGECE,
- vi. Constructed Lagoon Systems for rural sewage treatment.

Digital Services: the Project will support the generation of diagnostic information and the development of digital tools for family farming, such as digital technical assistance, digital information services (prices, agro-climatic, logistics, etc.), digital financial services, digitization of the supply chain, e-commerce, among others.

The Project will prioritize the use of existing technologies, such as the SECAF/SIRAF database, EMATERCE's remote ATER application, technologies developed by EMBRAPA, or solutions identified through South-South and Triangular Cooperation. Integration of ancestral/traditional technologies would be a plus. Although the main objective of the Project is to encourage new technologies, many existing technologies are not widely used and could be put to better use, for example, by creating virtual technical assistance spaces. Such reuse would save time and resources in the creation of new technologies.

Some of the tools identified for development are listed below. Other activities may also be considered if they prove relevant during Project implementation.

1) Digital services for small farmers

- a) Digital technical assistance: education, training, and access to production tools, such as agroecological techniques, identification of plants, insects and recommendations for green manure or pest control.
- b) Information services: prices, logistics, weather information and early warning systems, etc.
- c) Financial services: financial management tools and access to financial services, such as easy credit and insurance
- d) Digitization of the supply chain: recording of information, planning tools, sharing of implements, shared transport of products and inputs, etc.
- e) Access to markets and e-commerce: Selling products, buying inputs, etc.

2) Digital services for cooperatives and associations: Resource Sharing, Market Access, Management Tools, etc.

6.3 COMPONENT 3: KNOWLEDGE MANAGEMENT AND COOPERATION TO ADAPT TO CLIMATE CHANGE AND COMBAT DESERTIFICATION IN THE SEMIARID (INOVA CLIMA)

This component will be grant-funded (100% AECID grant resources) and will aim to promote capacity building among family farmers and ATER teams, foster environmental education to ensure food security and nutrition in rural communities and implement sustainable and inclusive technologies and innovations adapted to the semiarid environment. Replicable pilot projects will be developed, and exchanges organized, following the model of South-South and Triangular Cooperation (SSTC). It also aims to provide support to the PMU to strengthen the state's institutional capacity to implement PPF II and, in particular, the activities financed by Component 3.

Subcomponent 3.1. Capacity building for family farmers and rural extension teams (Technical Assistance, TA)

This subcomponent aims to promote capacity building in areas related to climate change resilient agriculture, covering topics such as desertification, nutrition, biodiversity, and food security. It seeks to provide a comprehensive perspective on these issues and, consequently, influence possible public policies.

It aims to implement activities to improve and update the knowledge and skills of beneficiaries and the teams of professionals working on the Project, especially within the scope of component 1. It will work with contracted ATER entities, EMATERCE and other project target groups. In this sense, it will also seek to value the knowledge of small producers, especially the PCTs, to act as multipliers and agents of local strengthening.

To this end, courses, training and capacity-building will be set up, including face-to-face activities and virtual content - which will take place throughout the pProject's implementation. In addition, technical assistance will be provided to producers and the exchange of experiences and good practices will be facilitated. Special attention will be paid to the participation and empowerment of rural women.

Specifically, the following activities will be carried out: 1) Courses for farmers offered by TA; 2) Training courses to strengthen the technical staff of ATER and STA; and 3) Activities to exchange experiences between farmers in the state.

A good example of this type of activity with farmers is the case of the Environmental Agents in the Tremembé Indigenous Land of Barra do Mundaú, located in the municipality of Itapipoca - CE, where community members work to preserve and monitor the demarcated area, as well as promoting more sustainable practices with other producers. All these activities will complement the technical assistance provided by the Project.

To carry out these activities, the Project will be able to establish partnerships with research and innovation centers, as well as with civil society organizations, in addition to the hired teams. These partnerships will allow, in dialogue with traditional knowledge and practices, the development and implementation of social and technological innovations adapted to the beneficiaries and tailored towards agroecological practices.

Aligned with knowledge management products, policy dialogues and SSTC, these activities will allow good practices to be scaled up, increasing replicability beyond the territories in which they operate.

Subcomponent 3.2. Promoting environmental and climate education with a gender focus in rural schools

This subcomponent focuses on promoting gender-sensitive environmental and climate education in rural schools¹⁸. To this end, training will be provided for students, teachers and school cooks in areas related to climate resilient agriculture, sustainable management of natural resources such as water and biodiversity, as well as seedling production, conservation of creole seeds, reforestation and food security and nutrition.

A network of partners will be mobilized to contribute with lectures and specific courses on topics of interest to the Project - including members of the PFF II team itself, contracted ATER entities, mobilization of specialists from EMBRAPA, universities, SEBRAE or other organizations.

In addition, the education on nutrition and food safety for students, cooks and teachers will be promoted by valuing local agrobiodiversity, promoting the production and consumption of nutritious, agroecological and safe food, with attention to gender equality in production and consumption. The knowledge acquired will be shared with families and

¹⁸ Rural schools in Brazil are present in various formats and modalities: Family Training Centers by Alternance (CEFFAs); Agricultural Technical Schools; Federal Institutes of Education, Science and Technology (IFETs); Agrotechnical Schools; Universities of the Countryside and Popular Education Projects; these are some of the institutions responsible for developing education in the countryside.

communities, thus contributing to the dissemination of sustainable practices, respecting local culture, and improving food security in their context.

Specifically, it will seek to support the strengthening of the knowledge and extension practices of high school students at the Family Training Centers by Alternance (CEFFAs)¹⁹ and similar institutions. The CEFFAs play a strategic role in sustainable territorial development, with young people at the forefront. The subcomponent will assist students and teachers at these institutions to strengthen their role as multipliers of agroecological knowledge and good practices, as well as to improve productive inclusion and income generation for rural youth, contributing to their permanence and succession in the countryside.

At the same time, CEFFAs will also be able to receive production and investment projects through the Project. After a specific diagnosis (curriculum and physical and productive structure) of the situation of each CEFFA supported by the Project, priority activities will be defined that can be supported by PPF II.

In addition, the Project intends to support partnerships with other local research and educational institutions, creating specific activities for rural youth. Meetings, exchanges and learning routes will be held between students and teachers from the CEFFAs with researchers/teachers/faculty from universities, IFAD projects and other partner institutions, with the aim of promoting the exchange of knowledge on agroecological practices adapted to the semiarid region, as well as encouraging continuing training for rural school students. In this way, rural schools will play a key role in integrating the IFAD projects in the region - PDHC III, PPF II and Sertão Vivo.

In the context of the various options for rural schools, the Project chooses to work primarily with CEFFAs because they have a greater connection with rural communities, i.e. because they use the alternance pedagogy as an educational model, they allow dialogue not only with the young people in training, but also involve their families and the entire rural community in which they are located. There are currently 5 EFAs in the state of Ceará, 3 of which are in the Project area, in the municipalities of Independência, Quixeramobim and Ipueiras. These schools will be able to strengthen their pedagogical program for the technical and productive training of young people with these actions.

Subcomponent 3.3. Promotion of research on technology and implementation of pilot projects

It aims to promote research on technology and the implementation of pilot projects that are economically accessible and viable, with the potential to become rural businesses. These projects will seek to use renewable energies, reduce the use of firewood and biomass, and improve the quality of water for human consumption, among other activities. Examples of possible pilot projects include:

- i. Development of eco-efficient stoves and solar ovens;
- ii. Equipment for treating water from cisterns for human consumption;
- iii. Alternatives to the use of firewood in small cassava processing units and other forms of processing;
- iv. Solutions for recycling solid waste to produce handicrafts and generate energy;
- v. Tools for rural digital inclusion, especially for vulnerable groups; and
- vi. Experiments and solutions in biosaline agriculture.

¹⁹ Family Training Centers by Alternance (CEFFAs) are known by different names, among them: Rural Community Schools (ECORs); Agricultural Family Schools (EFAs); Rural Family Houses (EFAs) and Sea Family Houses (CFMs).

In this context, reference centers will be established to serve as spaces for research, dissemination, and knowledge sharing, in collaboration with universities and research centers for the development of pilot projects. The methodology of these activities will be based on close collaboration with family farming organizations throughout the process, from the identification to the implementation of the projects, with the aim of achieving social integration and ownership of the solutions by the beneficiaries. The collection and analysis of lessons learned, and good practices obtained in the pilot projects will allow for their subsequent transfer through SSTC to other countries in Latin America and the Caribbean (LAC) or the Sahel region.

Pilot projects that achieve satisfactory results in terms of technical and economic viability will be replicated and disseminated in components 1 and 2 of the project, such as efficient stoves or water treatment for cisterns.

Subcomponent 3.4. Knowledge Management and South-South and Triangular Cooperation (SSTC)

This subcomponent will focus on systematizing, documenting, and disseminating the knowledge, experiences, innovations, technologies and good practices developed and tested by the Project and its partners, making them accessible to a wider public with a priority profile. In addition, studies related to the project's priority areas will be carried out with the aim of mobilizing new knowledge and good practices, as well as expanding the network of partners. These actions could include, for example, the development of a monitoring and evaluation tool to better track and understand the impact of climate change and desertification in semi-arid regions. Analyses are also planned on the participation of women in family food production and security, and on activities aimed at including PCTs.

The innovations and good practices promoted by the Project will be disseminated and shared through SSTC activities with other semiarid areas in Latin America, such as the Gran Chaco (Argentina, Bolivia, and Paraguay) and the Dry Corridor (Guatemala, Honduras, and El Salvador). Exchange activities will also be carried out with selected countries in Africa, with special attention to the Sahel region and Portuguese-speaking countries.

The Project will be supported by the IFAD Centre for Knowledge and South-South and Triangular Cooperation for the Latin American and Caribbean Region, located in Brasilia, and by the AECID Training Centre, located in Montevideo. These centers will support the organization of exchanges with countries in other regions to meet specific demands related to the Project's priority areas and to socialize the lessons learned and social technologies promoted by the Project. The SSTC activities will be coordinated with the Brazilian Cooperation Agency (ABC) and will consider the institutional agreements previously signed between ABC, IFAD and AECID.

The knowledge generated by the Project and the SSTC activities will play a key role in promoting political dialogues and developing public and private actions aimed at sustainable rural development.

Subcomponent 3.5. Strengthening the PMU to implement and monitor activities

This subcomponent aims to strengthen the capacity of the PPF II PMU to improve the implementation and monitoring of activities financed by Spanish Cooperation. The functions envisaged include: i) advising the PMU on the design and planning of activities, as well as the preparation of the procurement plan; ii) supporting the PMU in monitoring and following up on project activities and, in particular, the components related to Knowledge Management (KM) and SSTC, iii) technical assistance to the SDA on the design of innovation policies and programs in the agricultural sector based on Spain's experience; iv) support for the transfer of knowledge and good practices from Spain in the field of

sustainable agriculture and water management to the state of Ceará; and v) coordination with the Spanish Cooperation Office for Brazil, based in Montevideo, of the triangular cooperation activities carried out under the Project.

6.4 PROJECT MANAGEMENT, MONITORING AND EVALUATION (M&E) KM and SSTC

It will be responsible for carrying out all the necessary project management activities to ensure efficient implementation through a Project Management Unit (PMU), under the responsibility of the Secretariat for Agrarian Development (SDA). The M&E system will support the planning, monitoring and evaluation of results, and Knowledge Management and South-South and Triangular Cooperation (SSTC) will enable the preparation of materials/systematizations on PPF II good practices, as well as allowing the exchange of knowledge through exchanges in the state of Ceará, the semi-arid region of Brazil and other countries.

- Project Management Unit (PMU)

The Project Management Unit (PMU) at the SDA in Fortaleza (CE), is responsible for implementing the Project and carrying out the activities of technical coordination, management of the agreements established with the partner entities, management of the agreements established with the beneficiaries, procurement management, financial management and audits.

The PMU's key team will consist of government employees and will be complemented by professionals hired through a partnership with the Inter-American Institute for Cooperation on Agriculture (IICA), mainly in the areas of monitoring and evaluation, procurement, finance/accounting, and the rendering of accounts for agreements, as well as technicians to advise on the management of the components.

The Project will have offices in the Project's service territories, with the support of EMATERCE's physical structure.

- Monitoring and Evaluation (M&E)

To carry out the M&E activities, financial resources are earmarked for contracting evaluation studies, such as the Impact Evaluation (with baseline, mid-term and final evaluation), as well as studies to monitor/evaluate the implementation of the Project. The activities relating to the donation will be monitored and evaluated by means of specific studies.

The following activities are planned: i) project planning and management, including support for decision-making; ii) monitoring of the logical framework (LF); iii) evaluation studies, including baseline, mid-term, and impact assessment; and iv) support for the preparation of technical documents in synergy with the Knowledge Management strategy.

- Knowledge management, South-South and Triangular Cooperation (SSTC) and policy dialog

KM activities should be planned and staggered, considering the Project's life cycle. Financial resources have been allocated to enable the systematization of good practices and lessons learned, the formulation of knowledge products (publications, booklets, videos, manuals, etc.) and the carrying out of dissemination activities (seminars, workshops, webinars, digital platforms, newsletters, social networks, etc.).

The Project will rely on the support of strategic partners, to be identified in the start-up phase and throughout implementation, to carry out studies, research and events. These

partners will play a key role in the Project's sustainability strategy, ensuring that the knowledge generated is widely distributed and made available even beyond the Project completion. The Project will have a cross-functional specialist who will monitor communication, KM and SSTC issues. Specialized consultants will be hired to prepare technical documents and specific activities.

The SSTC activities will be divided into two main groups: i) exchange activities with countries in the Global South and Spain, to learn about experiences and good practices that can be adapted and replicated by the Project; and ii) cooperation activities with countries in the Global South aimed at disseminating and widely socializing the technologies and innovations generated by the Project. IFAD and AECID will support, based on their respective portfolios, the identification of SSTC opportunities between the Project and other countries in the Global South. In addition to Latin American countries, Lusophone Africa and the Sahel region have been identified as potential partner countries for SSTC actions.

The activities carried out on this theme will contribute to the exchange of experiences and debates within the framework of the UN Decade of Family Farming.

During the start-up phase, the Project will map partner institutions that can support the organization of South-South exchanges and KM activities. These institutions could contribute by providing technical, logistical and/or administrative services. The mapping will form part of the Project's integrated SSTC, KM and Communication plan, to be prepared by the specialist in charge and submitted to IFAD for approval.

7. PREPARING FOR IMPLEMENTATION

The negotiations of the Financing Agreements between IFAD and the SDA, and between AECID and the SDA will take place after:

- the approval of the Project by IFAD's internal review bodies and before the Project is submitted to IFAD's Executive Board.
- validation by the FONPRODE Executive Committee (necessary for the design report to be validated by the IFAD DRM and the favorable reports of the Spanish Ministries of Economy and Finance) and subsequent authorization by the Spanish Council of Ministers.

After approval by both parties, the Financing Agreement is expected to be signed. The Government of Ceará will make efforts to monitor the approval process both in the Senate and in the Ministry of Finance at the federal level.

The Project preparation activities to be carried out by the executing entity, the SDA, between the signing of the Financing Agreement and the start of operations, include: i) confirmation of the budget allocated for the first year; ii) designation of the International Technical Cooperation Agency responsible for administering contracts for staff, services, consultancies, among others, to support Project activities; iii) completion/adjustment of the PIM; iv) updating the First AWPB (Annex 6) and the PP for the first 18 months of Project operation (Annex 7); v) preparing the disbursement plan; vi) setting up the PMU; vii) drawing up the M&E and knowledge management plan; viii) officially launching and publicizing the Project; and (ix) preparing the Project kick-off workshop.

To facilitate the start-up of the Project, IFAD provides the following funding mechanisms: i) Retroactive funding: allows the eligibility of expenditure from IFAD sources and counterparts upon approval by the IFAD Executive Board²⁰ ; and ii) Initial expenditure:

²⁰ This mechanism allows the government to pre-finance certain expenses and submit them to IFAD for reimbursement or accounting in the case of counterpart, once the Project becomes effective and all pre-disbursement conditions have been

under this mechanism, the Project may receive an advance before the pre-disbursement conditions are met²¹ .

In the case of AECID loan financing (FONPRODE - Fondo para la Promoción del Desarrollo), reimbursement of eligible retroactive expenses will be allowed, provided that they have been incurred by the executor after the date of approval of the credit (FONPRODE) by the Spanish Council of Ministers.

The Project will be supervised directly by IFAD under the current guidelines for direct supervision, in dialog with the SDA, the executing entity of the Government of Ceará. To ensure alignment with other IFAD projects in Brazil, complementary supervision will be carried out to exchange activities and knowledge between the projects. The IFAD Office in Salvador will be responsible for supervising and supporting the Project, as well as designing the operation.

The missions will review progress in achieving the objectives, the performance of the Project and compliance with the contractual conditions. The following missions will be carried out during the course of PPF II: i) a start-up mission after signature; ii) at least one Supervision Mission and one Implementation Support Mission annually; iii) a Mid-Term Review Mission, possibly in year three; and iv) the closing mission to prepare the technical and administrative closure and plan the Project Completion Report (PCR), which will be submitted to IFAD 6 months after the completion date of the physical execution period.

7.1 Composition of the PMU

The PMU team must be made up of at least the following functions:

- i) General Project Coordinator
- ii) Technical Project Coordinator
- iii) Manager Component 1
- iv) Manager Component 2
- v) Manager Component 3
- vi) Finance Manager
- vii) Procurement and Contracts Manager
- viii) Monitoring and Evaluation (M&E) Manager
- ix) Specialist Component 1
- x) Specialist in component 2 (water and sanitation)
- xi) Specialist in component 3
- xii) Full Financial Specialist
- xiii) Procurement and Contracts Specialist
- xiv) Gender and PCT Specialist

met. The admissible retroactive financing expenses will be those associated with the hiring of key personnel, initial operating expenses, final preparation of the PIM, hiring of the necessary Accounting System, preparation of the baseline, training or others agreed with IFAD in a specific POA.

²¹ The expenses that may be incurred in this modality are the same as those allowed for retroactive financing. The maximum amount for retroactive financing and start-up costs will be fixed in the Financing Agreement, as well as the corresponding categories in which they can be accounted for.

- xv) Youth Specialist
- xvi) Nutrition Specialist
- xvii) Specialist in Knowledge Management, Communication and SSTC
- xviii) Specialist in Safeguards (Social, Environmental and Climate)
- xix) M&E specialist
- xx) Administrative Management Specialist

8. MONITORING AND EVALUATION (M&E)

8.1 Introduction

Monitoring and Evaluation (M&E) will be one of the mechanisms responsible for planning, monitoring and recording the Project's physical activities and measuring the results and impacts achieved.

To achieve these objectives, M&E will work in tandem with the teams from the other components to help with the Project's strategic planning and to ensure that its activities are aligned with the premises set out in the design document. In addition to operational complementarity, these links will be fundamental to ensuring that the Project is executed as defined in the MIP and the AWPB/PP for the current year.

The planning process will involve the collegiate bodies of the PPF II, including its team, the focal points of the SDA Secretariats, the bodies involved in implementation and organizations representing family farming, to build a participatory planning process. The PMU will be responsible for creating mechanisms and procedures to integrate the planning process at local and regional level with other public and private partners in the states and municipalities it covers.

The M&E team will be made up of two professionals with full and exclusive dedication to PPF II and will be assigned to the PMU, which will be responsible for recording beneficiaries and activities, as well as planning and conducting the Project's evaluation studies.

The M&E team will work in conjunction with the SDA bodies responsible for monitoring the Secretariat's projects. In this way, PPF II activities will form part of the state's public policy portfolio, bringing greater visibility to these activities.

The information generated by the M&E system will be widely used by the PPF II Knowledge Management and Communication (KM&C) team in the systematization, communication, and dissemination process, serving as inputs to influence public opinion and influence the political sphere. In this way, the materials produced will form a solid basis for the process of gaining scale, helping in the development of legal frameworks and public policies aimed at the sustainable management of the resources realized.

It should be noted that the Knowledge Management and Communication (KM&C) specialist will work in line with the M&E team, the components and the gender, PCT, youth and nutrition specialists. In this way, knowledge will be produced in an integrated, cross-cutting and multidisciplinary manner, capable of supporting new activities and also helping to disseminate the main results.

8.2 Planning

Regarding planning, the M&E team will be responsible for drafting and monitoring the following documents:

8.2.1 Monitoring and Evaluation Plan - M&E Plan

This document will be drawn up by the M&E team at the start of the Project and aims to define the guidelines to be followed during its implementation. For example, the presentation of M&E processes, the dictionary of indicators and the methodology for feeding the Logical Framework (LF), the definition of evaluation studies, among other topics. This plan, when completed, should be sent to IFAD for No Objection.

IFAD has an M&E Plan Guidance and Template (IFAD 2022) which will be made available to the Project team.

8.2.2 Logical Framework (LF)

The LF is a crucial tool for monitoring and evaluating the Project's activities. The indicators defined at the time of design reflect the main activities that will be carried out during implementation, as well as their expected results. It is important for the Project team to be aware of these indicators to plan activities.

Each LF indicator contains quantitative data (targets) and references explaining the source of the data, the entity responsible for the information and the assumptions used in its calculation. While implementing the Project, the data source, responsibility and assumptions may be adjusted. Indicators and targets can only be changed with IFAD's approval.

For each indicator, there are targets to be met by the end of the Project. The annual targets will be defined by the Project when drawing up the AWPB for the following year. Therefore, the AWPB must be related to the LF, where the planned activities with the budget will be related to meeting the physical targets in the LF.

The indicators will be monitored in a disaggregated way, by women, young people, indigenous peoples, and traditional communities, whenever applicable. The frequency with which quantitative information is entered into the LF is defined by indicator. The LF with the updated physical progress should be included in the AWPBs, Semi-Annual Progress Reports and in the moments prior to the start of IFAD missions.

The targets set for LF were based on serving families by activity, estimating that part of them will participate in at least one Project activity. Details of these estimates can be found in Annex IX of this document.

LF has three levels of indicators: output, effect and outcome. While the first records the physical scope of the Project, the last two types of indicators are responsible for assessing the progress and results achieved by the activities in the field and will serve as a basis for reconsidering and realigning the strategies for implementing the planned activities. Below is a breakdown of the 3 types of indicators:

Output indicators: The **output** indicators will be constantly monitored and will be represented by the Project's direct progress. Through these, it will be possible to know quantitatively what benefits the Project is providing and who is receiving them. For this reason, it is important to have an efficient system for registering beneficiaries and activities, so that the M&E team can issue management reports in a timely manner.

Effect/outcome indicators: The effect/outcome indicators will be measured mainly by carrying out the impact assessment study, with checks at the Baseline, Mid-term, and Final Evaluation. They will show the results of activities in the field, such as increased productivity, access to markets, expansion of green areas, etc.

The outcome indicators, classified as Core Outcome Indicators (COIs), have a methodology proposed by IFAD, with a set of questions that should be included in the impact evaluation questionnaire. The Project team should consult the IFAD manual on this subject: "Evaluation Manual, prepared by the Independent Office of Evaluation of IFAD"; and the Manual for measuring COIs: "Core Outcome Indicators - Measurement Guidelines (COI)". Both documents will be sent to the project at the beginning of its implementation.

The other LF effect/outcome indicators could be evaluated over a shorter period than that proposed for the COIs to serve as parameters for adjustments in the Project's implementation processes.

The impact assessment subject will be dealt with more in the specific section of this document.

The PPF II Logical Framework is available in Annex 1 of the Project Design Report (PDR).

8.2.3 Annual Work Plan and Budgeting (AWPB)

The AWPB is a document drawn up annually by the Project, which consists of a forecast of the activities to be carried out in the following year. Its planning will be in line with the Project's main documents, such as the design and implementation manual, and will contain a description of the financial resources that will be used over the course of the year. Activities involving the assistance of families must present the physical quantities, i.e. how many families will be benefiting. In addition, each activity must be related to an LF indicator, and the target will be included in this for the year in question. As an example, in the AWPB being drawn up for year 02, it is stated that resources will be invested in providing ATER for 1,000 families. This amounts represents the targets for the LF indicators relating to this activity in a given year.

The AWPB that will be sent for IFAD's No Objection must contain the LF, including the targets for the year in which it is in implementation, as well as the physical progress made to date.

The preparation of the AWPB will be the responsibility of the PMU team, especially the component managers and those responsible for the cross-cutting themes of the Project, such as youth, for example. The M&E team will be responsible for providing the team with information on the progress of the Project, as well as presenting the demands for implementation based on the final LF objectives. M&E will be responsible for providing input for the consolidation and evaluation of the AWPB, checking its consistency with the Project documents.

IFAD has a AWPB template that will be made available to the Project team.

8.3 Project monitoring

Regarding monitoring, the M&E team will be responsible for defining the means and methods that make it possible to obtain information on the implementation of PPF II. This topic will be addressed in more detail in the Monitoring and Evaluation Plan. The main topics are presented below.

8.3.1 Monitoring tools and methods

Implementation and use of a monitoring system: The Project must keep the information management system up to date, which will store disaggregated data specific to the beneficiaries, such as the composition of their family, ethnic group and, above all, the type of benefit received. It is also important that this system is available to the other PMU teams, so that they can feed and consult the system.

To this end, the Project will adapt and update the system used by PPF I, which consisted of monitoring the Investment Plans. The registration of families was carried out by another system and the compatibility between the systems was complex. In this case, PPF II will have to adjust the system so that it can add functionalities for registering, monitoring and following up activities, including the complete registration of beneficiaries.

The system should make it possible to monitor the progress of LF indicators, disaggregated by gender, youth and PCTs. It should also allow the inclusion of geographical coordinates of families and activities. The M&E team will be responsible for verifying the consistency of the information entered by the partner/contracted institutions to carry out the physical activities in the field.

Registration of beneficiaries and activities: The registration phase is very important for the Project and will generate the database with information on the families and the benefit received. The M&E system should preferably have an interface that allows ATER technicians to enter information in the field, using tablets and by monitoring the management and progress of registered indicators. The M&E system should also allow ATER's work to be recorded whenever the family is visited.

Registration will be required for all families (and their members) benefiting from the Project, in addition to each family's geographical area and productive uses. The main information to be recorded are: name of beneficiary, names of other family members, family farming category (quilombola, indigenous, riverine, settler, etc.), date of birth, gender, race and ethnicity, registration documents (CPF), as well as the geographical coordinates of the residence. The community's registration data, such as its name and typology, must also be included.

The M&E team should check which data should be obtained from these registers, including questions related to production, income, etc., to evaluate the results of the Project's work with these families. It is important to note that there is data that is already collected in other federal government systems, such as CadÚnico and DAP (Declaration of Aptitude to PRONAF/CAF (National Family Farming Register)). This data will be accessed by the PMU to analyze the profile of the families and the results/impacts. Using the beneficiary's CPF, data can be cross-checked between these databases.

Regarding the benefit, the system will record the type of benefit received and the start and end date of the activity. If the family receives more than one benefit, the Project will need to record these interventions in the family register, ensuring that the family is counted only once as a beneficiary of the Project.

8.4 Evaluation

Regarding evaluation, the M&E team will be responsible for defining the means and methods that will be able to measure the results and impacts of the Project's implementation. These analyses will be obtained through evaluative studies and should be further explored in the Monitoring and Evaluation Plan. The main topics are presented below.

8.4.1 Evaluation tools and methods

Preliminary results assessments: Preliminary results assessments will be used to support management and indicate whether the Project is on track. The M&E team will use data obtained at the time of registering the families (using the M&E System) and will update it as planned in the M&E Plan.

Evaluation of effect/impact indicators (COIs): The LF Core Outcome Indicators (COIs), will be assessed during the impact assessment study, i.e., the questions that will

bring answers to these indicators will be part of the baseline, mid-term, and final assessment.

The M&E team should consult the IFAD manuals about impact evaluation and monitoring of COIs (Evaluation Manual, prepared by the Independent Office of Evaluation of IFAD; and Manual for the measurement of COIs: Core Outcome Indicators - Measurement Guidelines (COI)) and their methodology should be included in the M&E Plan.

8.4.2 Impact Assessment

The first step in carrying out the impact assessment of PPF II will be to verify the theory of change, to validate that the links projected in the design document between the project's activities and products are in line with the desired short-, medium- and long-term results. This point is fundamental, as this will enable the study to accurately identify and capture the results achieved in all the existing dimensions, depending on the type of benefit received by the family. The study should begin before the benefits are provided to the families, preferably in year 1.

The impact assessment study will be carried out on the basis of 2 groups:

i) Treatment group: Composed of families that will benefit from the Project's actions. Therefore, in order to select the treatment group, PPF II will need to identify which families will receive benefits from the Project and the type of benefit. For example, those benefiting from ATER and PDRL or those benefiting only from social technology, etc. This information will be extremely important for drawing up the sampling plan, with specific strata for each outcome that will be assessed by the study.

ii) Control group: Consists of families who are not beneficiaries of PPF II, with the same social profile as the treatment group, to serve as a comparison for the study. These families may or may not live in the same municipalities as the Project, and it is up to the impact methodology to define this point. If the families live in the Project's area of intervention, it must be ensured that they do not receive any PPF II benefits during the entire Project period. This is a delicate point, as these families have the same social profile as the beneficiary family and will be prevented from receiving any benefits from the Project, so as not to affect the research. If it were decided to choose to select families living in municipalities that are not part of the PPF II area, one must ensure that, in addition to social parity, these families live in similar conditions to the treatment group, for example, with identical rainfall patterns. Considering that the family farming segment in the semiarid region has a certain homogeneity and that the Project will operate in specific territories in each state, whenever possible, families will be selected in territories not participating in the Project within the same state for the Control Group. This measure allows for greater transparency with the Control Group families and avoids questions about the selection of families.

Sample: For the treatment group, PPF II must ensure that it has a representative sample of beneficiaries, including women, young people and families from traditional peoples and communities. However, to do so, the Project needs to complete the selection of beneficiary families it will work with, as a basis for the sampling plan. For the control group, the sample should be drawn from family farmers with the same social and productive characteristics as the families in the treatment group. This sample can be chosen from existing databases, such as CadÚnico, DAP/CAF, among others.

The basic questionnaire for the survey will be provided by IFAD, where the Project can add new questions, adapting the document based on the desired results and the COI Evaluation guidelines.

The results of the impact assessment will be used to fill in the results of the LF impact and COIs, as well as providing information to support the preparation of the Project Completion Report (PCR).

The study should address the following issues, among others: i) income; ii) level of assets and wealth; iii) production, consumption and marketing; iv) management of the environment and natural resources, including access to water; v) agroecological transition of production systems; vi) level of participation of families in groups, networks, associations, cooperatives and other collective organizations of family farming and territories; vii) appreciation of gender, race, ethnic and generational identity; viii) access to public policies; and ix) food and nutritional security.

Regarding food security and nutrition, the research will use a comprehensive analysis of the issue for diagnostic purposes. This will allow the Project to outline activities to achieve the objectives of improving food security and nutrition. The survey should be based on the EBIA methodology (Brazilian Food Insecurity Scale), or others adopted by the Federal Government.

The impact assessment will consist of 3 stages: The Baseline Study, the Mid-Term Evaluation and the Final Evaluation.

Baseline: The baseline is a kind of initial X-ray of the Project's beneficiary families, where information on family composition, production, income, etc. will be obtained for later comparison with subsequent studies.

The baseline will be obtained through a sample survey involving treatment groups, which will represent the families to be benefited, and a control group, which will represent families that will not be assisted by the Project. The questionnaire to be used in the survey will be the same model used by IFAD Projects in Brazil, adapted to cover all the impacts expected for PPF II and the COI Evaluation guidelines.

The baseline study and its database should be available before any productive investment projects are implemented. Baseline data should be compared with data collected during implementation and, above all, in the mid-term and final impact evaluation.

The baseline report will detail the sampling design, including the factors for expanding the sample, the plan for applying the questionnaire in the field and the delivery of the manual for the data collection instrument. The preliminary report will contain a detailed description of the activities carried out to apply the questionnaire in the field, the delivery of the database and a preliminary report on the results of the fieldwork. The final report should include: i) an executive summary; ii) a sample design; iii) the identification and selection of observations; iv) a description of the study methodology and the calculation of indicator data; v) a presentation of the data analysis of the set of evaluation indicators listed above and collected using the information collection instrument (questionnaire), with illustrations using graphs, maps and tables; and vi) conclusions and recommendations. The report should include, as an appendix, the database, summarized in printed format and in its full form in Excel and "csv" electronic format, as well as other material relevant to the study, such as photographs of the surveyed households.

Mid-term evaluation: The mid-term evaluation will be carried out between years 3 and 4 of the Project, i.e., halfway through its implementation. The questionnaire applied in the mid-term evaluation will be the same as the one applied to the families in the previous study (baseline), with the aim of identifying whether the activity of PPF II are bringing results in the field, as defined in the Theory of Change of the Project design. With the results, the Project will be able to feed the LF COIs and use them as a source of information for managers, who will be able to assess the need for changes in the way the activities are implemented in the field.

Final and Impact Evaluation: This study will use the same questionnaire applied during the baseline and mid-term evaluation, making it possible to identify changes in the set of impact indicators listed above, to allow for a more in-depth impact analysis of the Project's activities on the beneficiary families. The study will be carried out during the final year of the Project, on the same group surveyed in the previous stages. It is important that the families in the treatment group have benefited for at least two years, to ensure that the impact can be identified after the investment has matured.

8.5 Preparation of technical documents

8.5.1 Semi-Annual Progress Report

The Semi-Annual Progress Report should be sent to IFAD and AECID every six months, containing a detailed description of the activities carried out in the last six months of the project, including information on physical and financial progress by component and sub-component and the extent to which they contributed to meeting the Project's goals. The report for the first half of the year, with data from January to June, will be sent to IFAD by July 31 and the report for the second half of the year, with data from July to December, will be sent to IFAD by January 31.

The Semi-Annual Progress Report should present the progress of the LF indicators in relation to the targets estimated by the current AWPB for the year and the total targets set in the design. The Semi-Annual Progress Report for the 1st semester should provide the lines of correction to be adopted by the Project in the second semester, so that delays in the execution of activities can be corrected, according to a specific schedule. The Semi-Annual Progress Report for the 2nd semester, in addition to detailing the activities for the period, should present an overview of the Project's activities for the entire year.

M&E will be responsible for providing quantitative and qualitative data to the Project team, as well as being responsible for consolidating the final document.

The Semi-Annual Progress Report for the 2nd semester must also present an analytical description of the Project's level of progress by component and sub-component, as well as the relevance of the activities carried out to the results of the indicators. This analytical section should i) register, qualify, monitor and evaluate the contracted service providers; ii) qualify the degree of efficiency of the information flows between the stakeholders, as well as contribute to strengthening the local planning coordination processes; iii) evaluate the quality of the Project's products, results and impacts, according to the LF indicators; iv) evaluate the success of the targeting strategy, including issues of gender, race, ethnicity and generation for each component, in order to ensure that the Project is reaching the target groups; and v) evaluate the relationship between the activities and investments and the management of natural resources in the context of climate change.

It is important that the document includes photographs to show the main activities carried out during the period.

IFAD has an Semi-Annual Progress Report template that will be made available to the Project team.

8.5.2 Project Completion Report (PCR)

Document to be drawn up by IFAD, consisting of the final report. The PCR will follow IFAD guidelines and contain information on the implementation of the Project, changes in direction (if any) and the results achieved. Focal points will have to be defined in the PMU to liaise with the other Project professionals.

It is important to note that the document must be elaborated in such a way that the cross-cutting themes related to activities with young people, women, PCTs, etc., are present throughout the text, including in the Project results. The KM materials and the results and impact evaluations will be fundamental to the preparation of the PCR and, for this reason, their deliveries should be aligned to ensure complementarity.

Closing workshop: This workshop will be the main closing event and will be attended by the main participants in the Project, such as the beneficiaries, ATER entities and other types of technical assistance, organizations representing family farming and the territories served, federal partner bodies, as well as municipal and state government bodies. During this event, the Project will present its activities and the results obtained, as well as gather information and testimonies from the participants. The results of this event will be systematized and included in the Project's PCR.

9. IFAD AND AECID MISSIONS

IFAD, in collaboration with AECID, can organize distinct types of missions:

1. Full Supervision Mission that evaluates the performance of all aspects of the Project;
2. Partial Supervision Mission, evaluating only selected aspects of Project performance (e.g., partial supervision mission can be conducted for projects with real or chronic problems);
3. Implementation Support Mission which is less formal and can be more technical in nature
4. Mid-Term Review Mission;
5. Completion Mission;

A Mid-Term Review (MTR) will be carried out by the end of year 3 of the Project, i.e., mid-implementation. The MTR will recommend a scale-up or reorientation as necessary to achieve the Project's objectives.

A Completion Review will be conducted by IFAD/AECID and will assess, among other things, the results and impact of the Project, review sustainability and the exit arrangement and review experiences and lessons learned.

IFAD/AECID missions will be accompanied by specialized consultants hired as necessary.

9.1 Supervisory missions

PPF II will be supervised directly by IFAD and AECID. To facilitate the implementation of the Project and ensure the fulfillment of its objectives considering the complexity of the operation, IFAD/AECID, in collaboration with the Government of Ceará, will carry out at least one supervision mission per year. Project supervision missions will include field visits and dialogue with state authorities and local stakeholders, such as civil society, research organizations, the private sector, and farmers' organizations, among others. The supervision missions will result in a Memorandum of Understanding signed between IFAD, AECID and the Government of Ceará, as well as the Supervision Report.

Supervision missions should focus on identifying implementation bottlenecks and proposing concrete solutions, rather than just evaluating Project performance. In the context of decentralization, which promotes the principle of continuous supervision, IFAD requires at least one full supervision mission every 12 months. The results of the supervision mission are captured in a Supervision Report generated online in ORMS, where performance scores are also assigned according to the criteria set out in IFAD's supervision guidelines. Financial management (FM) reviews, procurement reviews and general Project management issues are an integral part of all full supervision missions. Exceptional

circumstances may warrant ad hoc financial management and/or procurement supervision, as agreed with IFAD/AECID.

The supervision missions will consist of the following topics, among others:

1. Review of the progress of implementation, in view of the agreed objectives and results targets;
2. Dialogue on problems identified in project management;
3. Field visits to beneficiary families and communities and meetings with project partners;
4. Review of the Project's Interim Financial Reports (IFRs);
5. Review of the Project Progress Report;
6. Review of the issues raised in the audit reports;
7. Review of other financial and disbursement reports;
8. Discuss problems identified in the Project's financial management;
9. Financial risk update, including performance evaluation;
10. Review of the procurement and contract management processes carried out under the Project;
11. Agreements with Project implementers on measures to improve the Project's operational, financial management and procurement performance.

9.2 Implementation Support Missions

Implementation Support Missions aim to address specific issues that may arise during implementation. These missions will be critical to ensuring targeted support from IFAD/AECID and the removal of obstacles to implementation. Implementation support missions can be organized as needed and according to demand, with the initial forecast being at least one every year.

Implementation Support Missions provide technical assistance (and sometimes training) to implementing agencies. Reporting on these missions is done in the form of memos, does not include performance ratings and is not disseminated. However, it is shared with implementing agencies and partners.

IFAD/AECID provides implementation support for a wide range of activities, depending on the needs and circumstances of the Project. Implementation support can be reactive (responding to requests from the Project implementer) or proactive (initiated at the suggestion of IFAD or AECID), and can also be provided in response to real or emerging problems and constraints or to prevent identified potential problems from materializing. Implementation support should not replace regular Project implementation activities.

Implementation support can be mobilized for individual Projects to address specific issues, for country programs to address cross-cutting issues in the country portfolio, and for multinational/regional initiatives to facilitate learning and knowledge sharing. Support can range from assistance in resolving complex issues to more practical assistance or facilitation of processes, such as reorienting the strategic direction of the Project; modifying components or implementation arrangements; and resolving fiduciary issues (financial management and procurement) during Project implementation. It can also support the introduction of innovative approaches and the promotion of good practices and new partnerships.

It is important that implementation support contributions are agreed in advance with implementing agencies, partners, and stakeholders.

9.3. Mid-Term Review (MTR) Mission

The Government of Ceará and IFAD/AECID agree to carry out an MTR by the end of the third year of Project execution. The MTR will be carried out as soon as a study of the Project's progress and results is completed, which will present the first advances in terms of impact indicators. The minimum content of the aspects to be considered in the document will be defined jointly by the Government of Ceará, IFAD and AECID. This review will also analyze the implementation process and the relevance of the intervention strategies and methodology. The mid-term evaluation report will serve to adjust the direction of the Project.

The MTR mission must be preceded by the preparation and delivery of a report specifically designed for this purpose, which is drawn up under the responsibility of the PMU. The mission may trigger some contractual modifications of technical content and, possibly, of the term of the Financing Contract.

10. CONCLUSION AND CLOSURE OF THE PROJECT

10.1 Project Completion Report (PCR)

Document to be drawn up by the IFAD team, consisting of the Project's final report. This report will describe the situation at the end of the intervention, focusing on the results achieved in relation to the targets set in the LF and the lessons learned. The PCR needs to follow IFAD guidelines and should contain information on the implementation of the Project, changes in direction (if any), as well as the achieved results. Focal points should be defined in the PMU, with the aim of liaising with other Project professionals.

It is important to emphasize that the document should be constructed in such a way that the cross-cutting themes related to activities with young people, women, PCTs, etc., are present throughout the text, including in the results of the Project. Examples include women's groups, young people and traditional peoples and communities. The KM&C materials and the results and impact evaluations will be fundamental to the preparation of the PCR and, for this reason, their deliveries should be aligned to ensure complementarity.

The completion report represents the last stage of the partnership between IFAD and the state to achieve the agreed development results and is therefore formally the last stage of supervision and support for implementation.

IFAD prepares the PCR which: (a) assesses the extent to which the Project has achieved its objectives and evaluates the overall performance of the Executor, the Fund and implementing partners; and (b) draws lessons from this experience to improve the design of future projects, country programs / strategies and policies.

IFAD usually starts discussing the plans for Project closure with the grantee during the penultimate supervision mission to allow discussion of the activities required for completion, which are then included in the final AWPB. The following are the main areas related to Project completion to cover during the penultimate and final supervision mission:

- Status of all contracts or activities under implementation and their completion date, to align these dates with the Project's completion date and allow for timely payment to all contractors, consultants and suppliers;
- Status of closure activities - finalization of withdrawal requests, recovery and/or reimbursement of advances, reimbursement of any ineligible expenses;
- Project data collection processes to facilitate the evaluation of Project achievements;

- Organization of the impact assessment;
- The need to inform co-funders, stakeholders, and development partners of the closing date of the funding and to make arrangements for the closure of activities;
- IFAD has the obligation to prepare the PCR;
- The possible organization of a final mission to help collect relevant data as input for the PCR;
- Modalities and deadlines for the final audit report.

10.2 Timeliness of Project completion

The Project Completion date is defined as the end of the Project activities, on which the "implementation of the Project will be completed". It marks the end of the Project implementation period and eligible expenses must be incurred before that date. After that date, only expenses for settlement activities will be eligible. The Funding Closure Date is defined as the date on which the Beneficiary's right to request withdrawals from the Loan and Grant Accounts ends, which is six (6) months after the Project Completion Date or later which IFAD may designate by notification to the Recipient.

The Project will have a completion period (the six months after the completion of its activities) to document the expenses incurred before the completion date. During this period, the last (independent) external audit will be carried out and remunerated. Contract expenditure should be planned to be completed by the end of the Project in order to proceed with financial closure.

11. FINANCIAL MANAGEMENT

IFAD has developed the Project Financial Management and Financial Control Manual for Borrowers, which defines the financial management and financial control principles and requirements applicable to borrowers in all IFAD-financed operations throughout the project cycle to ensure compliance with fiduciary obligations.

Provision relevant for financial management of the project are included in the following documents : i) The signed Financing Agreement and associated documents; ii) The Project Financial Management and Financial Control Arrangements Letter (FMFCL) issued by IFAD iii) IFAD Policy on Preventing Fraud and Corruption in IFAD Activities and Operations, iv) the legal framework and policies of Federative Republic of Brazil; v) procedures and information systems in place within the Secretariat for Land Governance, Territorial, and Socio Environmental Development (SFDT) as executing agency.

Organizational structure for financial management

The Executing Agency for the project is the Secretariat for Agrarian Development (SDA)) of the Government of Ceara.

Within SDA in Fortaleza a dedicated Project Management Unit (PMU) will be established with at a minimum a Finance Manager ad an accountant. PMU staff will be responsible for the financial management of the project in particular: (i) Maintaining accurate and complete accounting records ii) Ensuring adequate levels of internal control; (iii) Submitting the quarterly IFRS and presentation of justifications of expenditure disbursement requests based on the same; (iv) Preparation of annual financial statements; and (v) Coordinating timely submission of external audit including all funding sources and in accordance with Handbook for Financial Reporting and Auditing of IFAD-Financed Projects

The implementation approach for the project is decentralized with a large portion of financing used towards the financing of Local Rural Development Plans (PDRL), The PDRL's financial resources are "non-reimbursable" and include a monetary or non-monetary

counterpart from the beneficiaries for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.). and capacity building

Procedures for design, implementation and reporting Local Rural Development Plans (PDRL) are included in Annex xx (updated version of Paulo Freire Phase 1 Manual "Prestacao de Contas – Instrumento de Repasse" .

Budgeting: The project budget planning process should be based on the costs calculated in the design, in the cost annex (COSTAB). This document is part of the design and constitutes a reference document in which the activities and resources of the project and the sources of financing are defined. Using the COSTAB as a reference, an Annual Workplan and Budgeting (AWPB) will be submitted to IFAD for No Objection no later than 60 days before the end of each year. The AWPB will include all funding sources and include a breakdown of expenditure by component, category, source of funding and quarter of execution. The SDA will be responsible for including the required budget amount for both IFAD and Gvt funding in the Annual Budget Law (LOA) and the Multiannual Plan (PPA) of the Union's General Budget (OGU). Approved budgets are entered in the Governments SIAFE system.

Flow of funds: IFAD and AECID loan and donation will be disbursed in euros (EUR) and deposited in separate designated accounts in euros at the Caixa Econômica Federal (CEF) in New York in the name of the State of Ceará (SEFAZ - Secretaria da Fazenda).

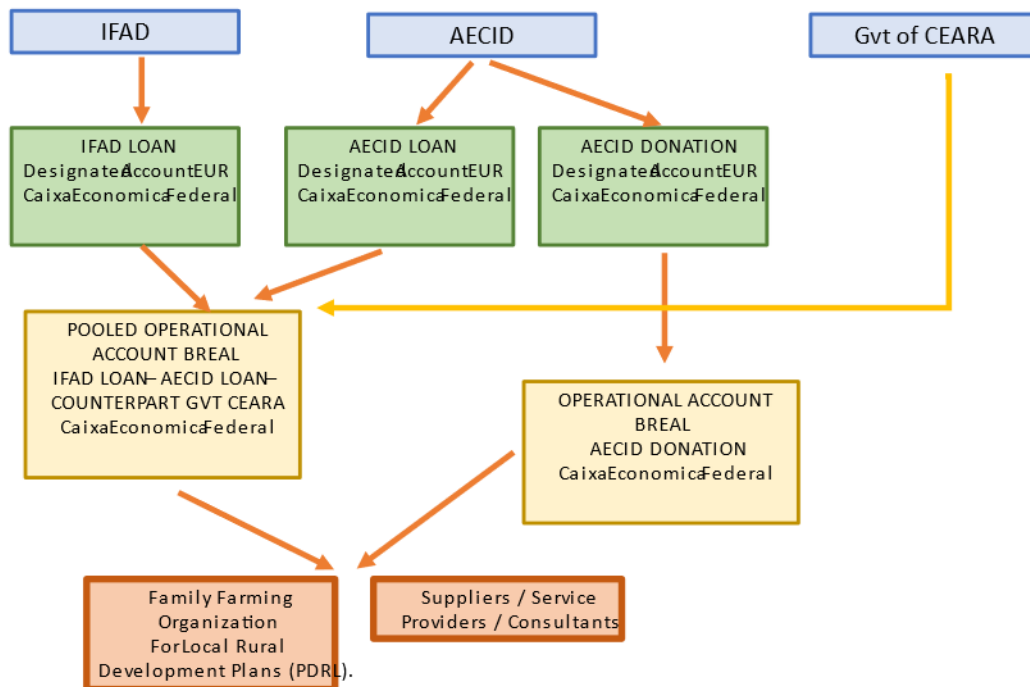
Operational accounts will be maintained with CEF in Fortaleza, to process local currency payments to service providers and suppliers, and transfer funds to other project partners. A pooled operational account in Brazilian Reals may be used for expenditure covered by IFAD Loan, AECID loan and State of Ceará counterpart funding as the system permits tracking of balances by funding source. For the AECID Donation, Spanish Government regulations require a separate operational account in Brazilian reals is kept.

In accordance with IFAD procedures, disbursements for both AECID and IFAD funding will be made based on the Quarterly Interim Financial Reports (IFRS) and will provide for a cash flow of six months of execution. Request for disbursements will be submitted through IFAD Client Portal (ICP). Based on the Co-Financing agreement signed between EACID and IFAD, IFAD shall review the disbursements requests and accompanying documentation, based on which IFAD shall recommend AECID whether to authorize the requested disbursements.

Details on the procedures to follow for requesting disbursements are included the FMFCL letter. As indicated in the letter, disbursement requests to IFAD are based on the IFRs (Interim Financial Reports), which should be accompanied by the bank reconciliations of the designated account and operational accounts in Brazilian Reals, together with the other documents required in the FMFCL letter.

The disbursements of the Government's counterpart funds will be allocated in accordance with the approved budget and in accordance with the programming of the required flow of funds. Cash, in-kind contributions and exemptions from customs duties and taxes for goods and services purchased under this Agreement shall be recognized as counterpart funds.

FLOW OF FUNDS PAULO FREIRE II



Accounting: The project will use the Government SIAFE-CE system which is obligatory for processing of payments. The Chart of Accounts in the SIAFE system follows the government standard used for all direct administration bodies. IFAD will accept the application of accounting standards as per Law No. 4.320 which mandates the use of accrual accounting based on standard set by Federal Accounting Council which as per IFAC evaluation of adoption status is aligned with International Public Sector Accounting Standards (IPSAS).

A complementary financial management tool will be implemented to enable: i) accounting for all sources of funding, including the nonfinancial counterpart, by disbursement category and components, by quarterly, annual and cumulative Project period; ii) annual control of the AWPB; iii) issuing specific reports in dollars and reais, including quarterly interim financial reports (IFR) for accountability and disbursement to IFAD and annual financial statements, based on data from the SIAFI system and other external information. The IFRs are expected to be generated automatically from

This system should be reconciled monthly with the Designated (USD) and Operational (BRL) accounts and should capture all counterpart contributions from other government sources and the contribution from beneficiaries.

To account for the amount withdrawn from the Designated Account(s), expenses in local currency funded by these accounts directly or through the Project's operating account with IFAD funds will be converted at the exchange rate applied by the bank when transferring the funds from the Designated Account to the Project's operating account in local currency.

The amounts withdrawn from the Project's operating account to finance the expenses with funds from the State Government, as well as the beneficiaries' contribution, for purposes of reporting to IFAD in the IFRS must be converted at the exchange rate of the last day of the month in which these expenses are incurred (Central Bank rate - Ptax Closing Rates/US DOLLAR - Dollar Purchase):

<http://www4.bcb.gov.br/pec/taxas/port/ptaxnpesq.asp?id=txcotacao>

All supporting documentation (contracts, invoices, payment vouchers, bank statements, etc.) will need to be properly archived for IFAD missions and auditing for up to 10 years after the end of the Project. For the decentralized in compliance with national legislation, supporting documentation is kept by the decentralized unit.

Financial Reporting: The reporting periods are detailed in the FMFCL. On a quarterly basis, within 30 days of period end, the PMU will submit to IFAD through the Financial Execution module in the IFAD Client Portal ICL the Interim Financial Reports (IFRS) which consist of: i) AWPB Report and Cash Forecast (next 2 quarters); ii) Summary of Sources and Uses of Funds; iii) Designated Account Activity Report (bank reconciliation); iv) Quarterly Variation Analysis; v) Yearly Variation Analysis; and vi) Cumulative Variation Analysis. The format to be used for the IFR is Included as Annex 3 to the FMFCL.

The annual financial reports constitute the financial statements for the fiscal year from January 1 to December 31. The Financial Statements shall be prepared in accordance with the "Operational Manual on Financial Reporting and Auditing of IFAD-financed Projects". The PMU must submit to IFAD the unaudited financial statements through the Financial Execution module in ICP within four months of the end of the financial year.

Internal Control will be ensured by establishing segregation of duties, reconciliation of accounts, levels of approval of expenditure supported by opinions or other documents. Process flows must be clear and well understood by PMU staff. All the Project's budgetary and accounting transactions must be carried out in SIAFI-CE system, observing the established routines and procedures for commitment, settlement, and payment as established by SDA.

The PMU will include as an annex to the PIM a financial procedures manual which will contain detailed procedures and guidelines for disbursements, payments, approvals, commitments, transfers, and accountability reports to IFAD and by partners.

The PMU will include as an annex to the PIM detailed procedures for for the valuation, reporting and registration of contributions from government and beneficiaries.

External Audit. The Project's accounts will be audited annually by the Court of auditors of the State of Ceara (To be confirmed before entry into force.) in accordance with the provision in the Handbook for Financial Reporting and Auditing of IFAD-Financed Projects The PMU must submit to IFAD through the Financial execution module in ICP the auditor's report, management letter and audited financial statements to IFAD in Portuguese accompanied by a Spanish or English translation within six months of the end of the financial year.

Financial Management Supervision Plan: Financial supervision of the Project will be carried out directly by IFAD through on-site supervision of the Project (including visits to the co-executors), without prejudice to other national control and inspection bodies, and will consist of assessing the quality of financial management, identifying corrective actions, where appropriate, and monitoring fiduciary risks. The supervision mission will be complemented by desk IFRs and Audit Reports.

Counterpart Funding

The Government of Ceara will be responsible for the co-financing defined in the Financing Agreements signed with IFAD and AECID and ensure adequate counterpart funding is included in the AWPB and Annual Budget Law (LOA) as submitted for approval to congress.

12. PROCUREMENT AND CONTRACT MANAGEMENT

The Project Management Unit (PMU) will be based at the Secretariat for Agrarian Development (SDA) in the state of Ceará and will have a procurement team that will coordinate and monitor procurement.

The PMU's procurement team will coordinate the preparation of all the Terms of Reference and/or Technical Specifications and the respective cost estimates or budgets. It will liaise with the technical teams that will make up the tender evaluation committees.

The procurement department will be responsible for coordinating and monitoring the Project's procurement activities and contracts and the procurement arrangements will be as follows:

- 1) The procurement will be carried out by IICA - Inter-American Institute for Cooperation on Agriculture and an execution agreement will be established. IICA will carry out the selection of individual consultants to advise the PMU, as well as simple procurement procedures.
- 2) The procurement will be carried out with the support of CEL 04 - the Special Tenders Committee of the Attorney General's Office of the State of Ceará. CEL 04 is a Commission specialized in carrying out procurement methods for contracting Legal Entities (Procurement, Technical Services or Business Consultancies), in accordance with IFAD rules. CEL 04 will support the selection of Rural Technical Assistance Entities, cisterns and other tenders.
- 3) Selections that will be carried out by third sector entities, exclusively for the selection of technical staff who will work in field activities (regional offices). This selection will be made competitively and the entity's procurement capacity will be evaluated before hiring. The Terms of Reference must inform the evaluation criteria.
- 4) Beneficiaries' procurement on legal instruments known as agreements in Portuguese or specific term: "convênio"). Beneficiaries will only carry out the Request for Quotation method and will be accountable for the use of the funds from their respective agreements. The project will update and distribute the simplified manual on carrying out this method, based on item "12.4.2 Request for Quotation (RFQ)".

Project procurement activities must be included in the Procurement Plan (PP) in OPEN. No procurement activity may take place unless it is included in the PP approved by IFAD with a "no objection". Operating expenses that are not eligible for competitive procurement will not be included in the PP, but they must be included in the AWPB.

The PP will indicate the type of IFAD review, whether prior or post. In prior review procurement, the procurement documents will be analyzed by IFAD at each stage of the bidding process, where no objections will be issued to proceed to the next stage. In post reviews, IFAD will analyze the bidding documents during supervision missions to verify that they have been carried out in accordance with its Regulations and this Implementation Manual, considering that all bidding processes financed by IFAD must comply with all the bidding principles laid down, including Value for Money (VfM), Economy, Integrity, Fitness for Purpose, Efficiency, Transparency and Equity.

Procurement opportunities must be advertised comprehensively to enable broad participation, considering multiple media outlets, including the Project website, national and local newspapers, internet, partners, etc. The General Procurement Notice must be sent to IFAD together with the Procurement Plan at the beginning of each year (January).

This Implementation Manual provides details of the methods initially planned for use by the Project, namely Individual Consultancy Selection for the selection of the teams that will provide the Project's activities, regardless of the support organization that will carry out the tenders, Request for Quotation, which will be used by IICA and the beneficiaries within the scope of their Agreements, and National Public Bidding, which will be used by the PGE (Attorney General's Office).

12.1 Mandatory clauses and forms

All agreements, management or similar, must contain IFAD's Anti-Corruption and Anti-Harassment clauses, as well as informing the sources of funding, and the identification of the Project.

All reference terms must be prepared considering the SECAP requirements (Annex VII).

All calls for tenders and contracts financed in whole or in part by IFAD, executed by the PMU itself, by IICA or by other management or bidding support entities, must contain the following Anti-Corruption and Anti-Harassment clauses and the eligibility self-certification form (Annex II):

Anti-corruption clause:

As this is an IFAD-funded contract, if the CONTRACTING PARTY concludes that the²² CONTRACTED PARTY has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices during the selection or execution of the contract, it may, after notifying the CONTRACTED PARTY within 14 (fourteen) days, terminate the contract, considering the definitions below:

- (i) "**corrupt practice**" means offering, giving, receiving, or requesting, directly or indirectly, anything of value with the aim of influencing the action of a public official in the bidding process or in the execution of a contract;
- (ii) "**fraudulent practice**" means the falsification or omission of facts to influence the procurement process or the execution of a contract;
- (iii) "**collusive practice**" means scheming or establishing an agreement between two or more parties, with or without the knowledge of the Borrower or its Agents, aimed at establishing prices at artificial and non-competitive levels;
- (iv) "**coercive practice**" means causing harm or threatening to cause harm, directly or indirectly, to persons or their property with a view to influencing their participation in a bidding process or affecting the execution of the contract.
- (v) "**obstructive practice**" means:
 - (a) destroying, falsifying, altering or concealing evidence in inspections or making false statements to auditors, with the aim of materially impeding an IFAD inspection of allegations of corrupt, fraudulent, coercive, or collusive practice and/or threatening, harassing, or intimidating any interested party to prevent them from showing their knowledge of matters relevant to the investigation or its prosecution, or
 - (b) acts intended to materially impede the exercise of IFAD's rights to conduct inspections or audits.

²² For the purposes of this clause, the term "parties" refers to the participants.

Measures to be adopted :

1. IFAD will cancel the portion of the loan or grant relating to the contract if, at any time, it concludes that representatives of the Borrower/Contractor or of a beneficiary of the loan have been involved in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of the contract, without the Borrower/Contractor having taken timely, adequate and satisfactory measures to IFAD to remedy the situation;
- (2) IFAD shall impose sanctions on the CONTRACTOR and may declare it ineligible, indefinitely or for a fixed term, to be awarded a contract financed by IFAD, if at any time it concludes that it has been directly or through an agent involved in corrupt, fraudulent, collusive or coercive practices when participating in the selection or executing the contract.

Inspection and Audit

The CONTRACTED PARTY shall permit IFAD and/or persons appointed by IFAD to inspect its accounts and records in connection with the submission of its proposal and/or curriculum vitae and the performance of the Contract, and the CONTRACTOR shall permit such accounts and records to be audited by auditors appointed by IFAD if required by IFAD.

Clause to Combat Harassment and Sexual Exploitation and Abuse:

IFAD requires the recipients of its funding to observe and enforce, including in all agreements and contracts within the framework of Projects financed with its funds, whether with Project staff, contractors, suppliers and other third parties, provisions for the prevention of "Sexual Harassment" and "Sexual Exploitation and Abuse", under the following provisions:

The borrower, beneficiaries or parties involved have the obligation to immediately report to IFAD, incidents in activities or operations financed or administered by IFAD, relating to Sexual Harassment and Sexual Exploitation and Abuse.

IFAD applies the definitions of the United Nations, which states that:

"Exploitation and sexual abuse in relation to beneficiaries in the context of IFAD operations are defined as any actual or attempted abuse of a position of vulnerability, differential power or trust, for sexual purposes, including but not limited to monetary, social or political gain from the sexual exploitation of others (sexual exploitation); actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions (sexual abuse). "

"Sexual Harassment is any unwelcome sexual advance, request for a sexual favor or other verbal, non-verbal or physical conduct of a sexual nature that unreasonably interferes with work, alters or is a condition of employment, or creates an intimidating, hostile or offensive work environment."

12.2 Publication of the activities tendered under the Project

Any disclosure of the Project's activities must be authorized by the PMU and refer to the name of the Project and the financing agents (Government, AECID and IFAD), in accordance with the government's rules on the arrangement of logos. All documentation generated within the framework of Management Agreements, Agreements, or similar, which carry out tenders and contracts for the Project, must highlight the name of the

Project and the funding agents in the Terms of Reference, Invitations, Notices, Requests for Expressions of Interest, public notices, project nameplates, etc.).

In the case of tenders, publication is intended to guarantee broad competition, transparency and the legitimacy of the procurement processes. Therefore, the Project will prepare and publicize, in the appropriate form and at the appropriate time, the procurement or selection notices according to their nature: (a) General Procurement Notice; (b) Specific Procurement Notice; and (c) Request for Expression of Interest. The Project must ensure that the information is published in a newspaper with wide national, state, and local circulation. It is important that the announcement of a tender in several media outlets is prepared to take place on the same day and during the same period.

General Tender Notice

The General Tender Notice is the disclosure by the PMU of all the main activities to begin the implementation phase of the Project, after effectiveness. It includes the value of the Loan Agreement, a general description of the Project's design and the international competition actions, if any, that it intends to implement. At the end, it provides interested bidders with contact information for the PMU and the bodies technically responsible for each action. At the start of the Project, the PMU will draw up and publish the General Tender Notice. The Notice should be drawn up in the form and standard recommended by IFAD and updated annually. Each new Procurement Plan approved at the beginning of the year must be followed by the publication of a GPN.

Specific Tender Notice

The Specific Tender Notice is the announcement by the PMU of each of the tender processes for goods, works or non-consultancy services that it intends to initiate, to obtain a response from those interested in taking part in the tenders. It provides a brief description of the goods and non-consulting services to be purchased, requests the submission of bids from eligible bidders and indicates the date and place for submission. At each start of the procurement process (goods and non-consulting services), it is necessary to publish/disseminate the Specific Tender Notice, to ensure broad participation in the bidding process.

Notices of bids and Requests for Expression of Interest must be published in a newspaper with large national circulation, or in the official gazette of the Union and the State. However, it is recommended to expand publicity in local newspapers, government websites, the project website and other media that can favor the largest number of participants/competitors.

Request for Expression of Interest

The Request for Expression of Interest is the disclosure of each of the consultancy selection processes that you intend to initiate, to obtain a response from consultants interested in participating in the selections. It provides a brief description of the consultancy service to be contracted; requests the submission of portfolios/resumes from eligible consultants; and indicates, in general terms, the selection criteria and the date and place for submission. At the beginning of each selection process (consulting services of an intellectual nature and advisory services), the Request for Expressions of Interest must be published/disseminated on the project's or SDA's *website*, in newspapers with wide national circulation and in other ways usually used to ensure broad participation in the selection process. In the Project, the Request for Expression of Interest is mandatory for all selections of consultancy services.

12.3 Communication with IFAD on procurement and contracts

Communication with IFAD on procurement and contract issues will always be carried out by the PMU, through personnel agreed with IFAD, preferably from the Project Procurement Coordination.

12.4 Detailing IFAD methods

12.4.1 Selection of individual consultants (ICS)

All hiring of staff/consultants for the Project must follow the guidelines in this Implementation Manual.

The method used to select consultants/team for the activities provided for in the Project will be "ICS". And for the selection of the Project advisory team, the TOR - Term of Reference - must be for a period of time, with monthly payments after delivery of the activity report approved by the Coordination.

Depending on the available resources and the type of work, the contractual modality may be a contract following the CLT - Consolidation of Labor Laws, even with a ToR for a determined period of time, and in the case of consultants to advise on the Project. If the CLT is not chosen, a fixed-term contract may be established.

The selection of consultants using product-based Terms of Reference will be for one-off deliveries, which, once completed, will end the link with the project, and it will not be possible to use the CLT contract modality, only a product-based contract. Example: Hiring a consultant to develop a specific study, or just establishing a contract, which could be by product, for a specific delivery, or a time contract, for advising the PMU. In addition to the purpose of the ToR, the description in the PP should also state the contractual type of each professional to be hired.

IFAD has two contractual modalities: (i) by product, for services with specific deliverables and (ii) by time, for advisory services, in the case of hiring consultants to advise on PMU activities. Attached are models of the ToR by Time (Annex IV), the Term of Reference by Product (Annex V) and the Curriculum Evaluation Matrix (Annex VI).

Guidelines for the Selection of Individual Consultants:

Individual Consultants are hired for services in which (i) the participation of a team of experts is not required, (ii) no additional external professional support is needed (such as a head office) and (iii) the person's experience and qualifications are the main requirements.

In the selection of IFAD Individual Consultants, curriculum evaluations cannot be a purely mathematical exercise. Individual consultants are selected based on their experience, qualifications, and ability to perform the service. They do not need to submit proposals and will be considered if they meet the minimum requirements determined by the contractor based on the nature and complexity of the service. In addition, they will be evaluated based on their academic background, specific experience and, as the case may be, knowledge of local conditions such as language, culture, administrative systems and government organization.

The selection should be made by comparing the overall capacity of at least three qualified candidates among those who express an interest in performing the services. Ideally, more than three should be chosen to increase the chances of being hired and replaced if necessary.

The ToR, a document of an exclusively technical nature, must define the minimum qualifications for a consultant to be on the short list and **cannot be confused with or transformed into a public notice**, as this does **not** exist in individual consultancy selection processes. These qualifications should be listed in terms of minimum academic background, minimum specific experience and, if applicable, minimum knowledge of local conditions. If a candidate falls below any of these minimum qualifications, the candidate will be disqualified and their CV will be discarded. The minimum qualifications must be set at a balance between low enough to favor competitiveness and high enough to ensure that any consultant who meets them can carry out the consultancy.

1. With at least 3 valid candidates, a technical team of evaluators, assisted by the Project's bidding team, should meet to conduct the individual evaluation of each of the CVs that make up the short list. They must observe the confidentiality clause that applies to the bidding and selection processes for IFAD-funded consultants, and information about the evaluation must not be discussed by the evaluators with any of the candidates or other people who are not officially linked to the selection process. A declaration of impartiality must be signed by the Evaluation Committee.
2. A curriculum evaluation matrix, establishing sub-criteria (desirable qualifications) and their respective maximum scores, will have been created together with the TOR, as an annex to it, but not as part of it. It is acceptable for the percentage weight of the evaluation criteria to be disclosed in the TOR, such as 30% for academic background, 60% for specific experience and 10% for knowledge of local conditions, or for an interview.
3. Until the publication of the contract award, it is not acceptable for the evaluation matrix listing the sub-criteria to be disclosed to the consultants or made public in any way.
4. It is recommended that the proposal evaluation matrix be structured in such a way as to guarantee at least:
 - a. That each evaluator has a personal evaluation form for each CV on the short list. The form should have at least fields with the title of the consultancy, the date of the evaluation, the name of the evaluator, the signature of the evaluator and the name of the evaluated consultant.
 - b. Under each of the criteria (i) academic background, (ii) specific experience and, if applicable, (iii) knowledge of local conditions, there should be specific sub-criteria. Percentage weights are given to each sub-criterion according to their relevance, resulting in maximum points for each sub-criterion, which added together equals the maximum possible score for the criterion. Each sub-criterion will receive the score that the evaluator considers coherent when analyzing the curriculum, the sub-criterion, the TOR and the universe of consultants that make up the short list.
 - c. Just below the sub-criteria, there must be a field for the evaluator to justify the grade given. Changes to the score that the evaluator decides to make during the evaluation process, depending on the universe of consultants that make up the short list (minimum of three), must also be explained in this field, without the need for a new form.
5. Each candidate must achieve the minimum final mark (cut-off mark) of no less than 60 out of 100 points must be considered valid.
6. Once they have the CVs and the evaluation matrix, each evaluator, in their individual assessment, will distribute points according to their analysis, respecting the maximum score for each criterion and the consultant's suitability for the specific consulting task, as described in the Terms of Reference. It is not expected that all professionals who meet the minimum requirements will receive the same score, but rather that the evaluator will award the best score to the best candidate, considering the relevance of the consultant's CV to the proposed consultancy service and evaluating the aspects listed in the sub-criteria. Successively lower scores are awarded to the other candidates. Note that the best score does not mean

the maximum score, but the highest score among the candidates, which may or may not reach the maximum score available for the criterion or sub-criterion.

7. The degree of training, number of studies and years of experience are considered in this evaluation process. However, the evaluator's judgment goes beyond pure mathematics. The technical judgment must also differentiate the relevance of the degree of training, number of studies and years of experience to the consulting task.
8. At the end of the individual evaluations, the final result will be an arithmetic average of each evaluator's scores. The borrower's tender area must consolidate the individual reports into a final report, which has the evaluation forms of each evaluator for each consultant evaluated as annexes.
9. The successful candidate (winner) will be called to a negotiation meeting and the consultant must be invited to sign the contract. IFAD does not have a standard contract template for individual consultants and there are only 2 requirements for individual consultant contracts:
 - a. Punishment clauses such as fines are not accepted. The punishment for poor performance by an individual consultant is non-payment for products or activities that are delivered without the expected quality.
 - b. Every contract must contain IFAD's mandatory clauses.

To publicize the selection of individual consultants, an SMI - Request for Expression of Interest will be published, according to the model below:

REQUEST FOR EXPRESSION OF INTEREST

Individual Consulting Services

BRAZIL - (ORGAN AND ACRONYM)

(INSERT PROJECT TITLE)

Loan Agreement No. XXXX - IFAD

The International Fund for Agricultural Development has made a loan to XXXXX, for the execution of Project XXXXXXXXX, which intends to apply part of the amount of the funds to the following consultancy service: (INSERT OBJECT OF TERM OF REFERENCE).

A/O XXXXXXXXX invites Individual Consultants to express their interest in performing this service. The selection will be made by comparing the overall capacity of qualified candidates who express an interest. The criteria for forming the Short List of Individual Consultants will consider experience and qualifications for the service. Expressions of Interest that minimally meet the following criteria will be considered:

Academic Background: (INSERT the minimum criteria from the TOR qualifications item)

Specific Experience: (INSERT the minimum criteria from the TOR qualifications item)

The Expression of Interest does not imply any commitment to a contract. The selection process will be conducted according to the Individual Consultant Selection (ICS) method set out in IFAD's Procurement Regulations.

Number of vacancies: (INSERT)

Contractual Modality: (INFORM IF CLT, or Global Price/Products, or By Time)

Contract term: (INFORM)

To take part in the selection process, candidates must send a detailed curriculum vitae with their training and experience by e-mail, informing their contractual periods (start and end), no later than 11:59 p.m. on XX/XX/201X, to the following e-mail address: (INSERT PROJECT e-mail address preferably)

The subject line of the e-mail sending the CV must contain the following identification: "**Selection of Individual Consultant - Code: TDR/CI/No.** (INSERT) - Project (INSERT PROJECT NAME)".

This SMI and the Terms of Reference can be viewed at: (INFORM ELECTRONIC ADDRESS)

AND/OR

This SMI and the Terms of Reference can be requested by: (INSERT PROJECT EMAIL), (INSERT PROJECT TELEPHONE)

(Name of person responsible - Authorizing Officer)

(Position and Body)

12.4.2 Request for Quotation (RFQ)

This method will also be used by the beneficiaries of the Project, within the framework of the agreements. Guidance on how to use it should be given in instructional workshops before the start of the execution of each agreement to be established with the farmers or cooperatives. It will also be used by IICA or PGE for the purchase of goods, technical services or works and renovations that do not exceed the limit set for the Project.

Request for Quotation, or *Shopping*, is a procurement method considered to be the simplest of those provided for in the IFAD Regulations. It is used for the acquisition of technical goods and services (common or off-the-shelf) that do not exceed the value of USD 100,000 and for small works or renovations that do not exceed UDS 200,000.

RFQ comprises the comparison of price quotations, in a minimum of three, obtained from various suppliers. Its aim is to guarantee competitive prices, and it is the appropriate method for purchasing limited quantities of goods that are readily available on the market, or cheap products with standardized specifications.

Requests for quotations must contain the description and quantity of the goods, as well as the date and place of delivery.

Quotations can be sent by electronic means or system, and their evaluation will follow the same principles as an open tender.

The terms of the accepted bids/quotations will be incorporated into the purchase order or simplified contract, which must contain the mandatory clauses of IFAD.

12.4.3 National Public Bidding (NCB)

The *National Competitive Bidding* (NCB) method is the competitive bidding procedure normally used for national public tenders, and may be the most appropriate method for purchases of goods, works and technical services which, by their nature or scope, are unlikely to attract the interest of foreign bidders.

This method could be used to select third sector organizations that provide rural technical assistance. To this end, lots should be defined by territory or by nearby municipalities.

The NCB procedure aims to ensure economy, efficiency and transparency and will be used within the scope of the Project for the procurement of common technical goods and/or services. No works are planned under the Project.

The NCB procedure is also adopted when the advantages of ICB (*International Competitive Bidding*) are clearly outweighed by the estimated administrative or financial burden.

The terms of the contract include clauses referring to fines or similar provisions, with an appropriate value, for when there are delays in the delivery of services or goods.

The NCB method also includes bid security and performance guarantee.

BID SECURITY (2.14)	PERFORMANCE GUARANTEE (2.41)
Reasonable amount (from 2 to 5% of the estimated cost of the contract)	For contracts for goods, consider the amount to be between 5 and 10% of the value of the signed contract.
Validity of 30 (thirty) days beyond the period of validity of the tenders	
It is recommended to indicate a fixed amount, equal for all bidders, and not a percentage of the estimated cost.	

The forms of guarantee accepted are those issued by a banking institution, such as a bank guarantee and cashier's check.

The full text of the call for tenders will be published in a newspaper with a wide circulation in the country and in the national language, or in the Federal Official Gazette, or on a widely visited website or electronic portal with free national and international access.

The Project may publish a shorter version of the material for dissemination, with the minimum relevant information, in the national press, provided that the full text is published simultaneously in the Official Gazette or on a widely visited website or electronic portal with free national and international access, as indicated in the short version. This disclosure must take place sufficiently in advance for potential bidders to obtain the relevant documents.

The tender notice may be published in the national language. The currency to be adopted will be the Brazilian currency for bidding and payment purposes.

The NCB notice must include the IFAD Self-Certification Form.

The call for tenders will also contain clear information on how, where and when tenders are to be submitted, and how prices are to be offered. It should state that the technical specifications must be "substantially" met, to give companies a margin for compliance.

An appropriate deadline should be specified for the preparation and submission of tenders. The procedures must provide for appropriate competition, with the aim of ensuring that reasonable prices are offered. In an NCB process, the minimum deadline for opening tenders is 30 (thirty) calendar days after the date of publication of the Tender Notice.

The invitation to tender must specify whether the price is fixed or whether it will be subject to adjustment based on specific price variation indices. If the tender does not contain adjustment clauses, there will be no way of adjusting the price later if necessary. It is usually provided for in contracts over 12 months.

The methods used to evaluate bids must be objective and communicated to all bidders in the call for tenders, and the Commission is not permitted to adopt criteria other than those set out in the call for tenders.

The project must have an effective and independent mechanism for receiving complaints, allowing bidders to protest and have them dealt with in a timely manner.

Foreign companies wishing to participate in the tender may do so, provided they are willing to accept the NCB terms and conditions valid for domestic bidders.

Next, the stages of direct execution for tendering an NCB will be demonstrated, with the procedures being separated into three phases: (i) internal, (ii) external and (iii) contractual.

Phase 1 NCB - Internal

1	Draw up the Specification and send it to the Project.
2	Receiving the Technical Specification and opening the administrative process, duly registered, filed, and numbered.
3	Drawing up budgets/cost estimates.
4	Draw up a Technical Note containing the justification for the contract (project framework).
5	Confirm that budgetary resources are available for contracting.
6	Draw up the Tender Notice, the Public Notice, and the Draft Contract.
7	Send the documentation (Notice, Invitation to Tender, Technical Specification and Draft Contract) for non-objection.
8	Issue a no objection.
9	Appoint the Evaluation Committee.
10	Forward the file to the legal department for an opinion.

11	Issue a legal opinion on the contracting process. Remember that if the Legal Department makes any changes to the call for tenders or annexes, the package of documents must be returned to IFAD for non-objection, if a revision is made.
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Below is a model Tender Notice that could be proposed for analysis by IFAD:

<p>TENDER NOTICE</p> <p>(INSERT NATURE OF SERVICES)</p> <p>BRAZIL - (INSERT BODY)</p> <p>(INSERT PROJECT TITLE)</p> <p>Loan Agreement No. XXXX-BR - IFAD</p> <p>XXXXXXXXX has negotiated a loan with the International Fund for Agricultural Development for the execution of Project XXXXXX and intends to invest part of the funds in the following (INSERT SERVICE OR ACQUISITION): (INSERT OBJECT)</p> <p>XXXXXXXXX invites eligible companies to take part in the tendering procedure for (INSERT FOR THE PROVISION OF SERVICES OR THE SUPPLY OF GOODS/MATERIALS/ETC).</p> <p>The tender will be conducted in accordance with the procurement method known as NCB - National Public Bidding, established in IFAD's Procurement Regulations. The evaluation criterion will be the Lowest Overall Price, coupled with substantial compliance with the specifications contained in the Terms of Reference.</p> <p>In order to take part in this tender, you must comply with the provisions of NOTICE No. 0X/201X/(SIGN OF BODY) available at the following e-mail address: (INSERT PROJECT WEBSITE) or by request at the following e-mail address: (INSERT PROJECT E-MAIL).</p> <p>Further information can be obtained from the following e-mail address: (INSERT PROJECT EMAIL).</p> <p>The deadline for submitting proposals, as stipulated in the notice, is no later than XX hours on XX/XX/201X.</p>

Once the tender documents have been approved by the Legal Body, the stages of Phase 2, which begins with publicity, are carried out.

Phase 2 NCB - External

12	Promote the publication of the tender notice in the DOU and/or a national newspaper with wide circulation and/or a national website with free national and international access.
13	Publish the Evaluation Committee internally.
14	Prepare and submit a bid in accordance with the call for tenders.
15	Open the tenders to the public.
16	Receiving and evaluating the bids and drawing up a detailed evaluation report with the award of the winning company.
17	Forward the evaluation and judgment report with the award to IFAD for analysis.
18	Issue a non-objection to the Evaluation Report. Remember that if the need arises to modify the Call for Proposals or the annexes, the set of documents must be submitted to IFAD for non-objection.
19	Forward the process for approval by the competent authority.
20	Approve the competition.
21	Make a commitment to the approved company.
22	Draw up the Grant document. Submit to IFAD for non-objection, if previously reviewed.
23	Issue no objection to the Grant document (prior review).
24	Promote the publication of the Award in the DOU within 2 weeks of the date of non-objection, in the case of a prior review, or within 2 weeks of the date of approval of the tender, in the case of a subsequent review (DOU and/or national newspaper with wide circulation and/or national website with free national and international access).

The Project Area should arrange for the Tender Notice to be published in a newspaper with a wide circulation in the country and in the national language, or in the Federal Official Gazette, or on a widely visited website or electronic portal with free national and

international access. It is important to note that the greater the publicity, the greater the chances of obtaining bids for the tender, so it is advisable to do as much as possible by publishing the notice in all three options.

Once the Tender Notice has been published, IFAD must be informed of the Evaluation Committee for the tender, which must have already been appointed in Phase 1.

The bids will be opened in a public session at the place, time and date stipulated in the public notice, under the coordination of the Project team, which must be early enough to receive the bidders.

Regarding the opening of tenders:

The bids will be opened in a public ceremony only in the presence of the bidders and the project team that handles the bidding procedures. Public act does not mean open to the general public, but to the participants in the tender.

The "single" envelope of each bidder must be opened for examination (not evaluation) of its contents. The act of opening the bids is not part of the evaluation and judgment process.

Under no circumstances should proposals submitted by the deadline specified in the call for proposals be rejected or returned. Even if they are blank, have an empty envelope, etc., everything will be recorded in the minutes and no one will be disqualified at this point (this is up to the Evaluation Committee).

Bids submitted "after" the deadline must not be received.

All bids received by the deadline must be opened and read in public in the presence of the bidders and/or their authorized representatives.

- First, the requests to withdraw tenders received within the time limit set in the call for tenders will be read out.
- Secondly, the requests to modify proposals received by the deadline will be read out.
- The bids received will then be read and recorded, together with the prices and discounts offered.

All relevant circumstances or events occurring during the opening session must be recorded in the minutes.

Companies are not allowed to check the bids of others.

Carrying out the correct procedure for opening tenders is fundamental to guaranteeing the transparency of the bidding process.

At the end of the meeting, the project team should finalize the minutes, ask those present to sign them, scan them, and send them to IFAD immediately, distributing copies to those present.

For this to be possible, the project team must have drafted the minutes beforehand, with the details of the project, the tender and the bidders, and appoint someone exclusively to record all the information during the meeting. The minutes should be structured in the order of the information to be read out.

After the deadline for receipt of proposals has passed, the Evaluation Committee will be convened by the Project to begin its analysis. The purpose of evaluating the proposals is:

Determine each bid's compliance with the requirements of the bidding documents.
Determine the evaluated price of each bid for comparison:

EVALUATED PRICE = PROPOSED PRICE +/-Arithmetic correction + correction for items not included - TAXES (IPI and ICMS).

- Select, for award of the contract, the proposal with the lowest evaluated price that is substantially in line with the Technical Specifications.

The analyses must comply with the following principles:

- Confidentiality - is key to ensuring eligibility for bid funding.
- Transparency - clarifications are allowed as long as they do not change the essence of the proposal or the price.

The Commission must pay attention to the fundamental concepts for accepting or rejecting proposals, which state that a proposal must meet the following requirements:

Identify the bidder by means of a signed letter of proposal.

- Present authorization to submit a proposal.

Clearly present the price of the proposal.

- Be accompanied by a tender guarantee in the form and amount established in the public notice.

Substantially meet the technical specifications.

- Present a satisfactory delivery schedule.

Comply with the qualification requirements (experience, financial capacity, among others).

The Evaluation Committee should also check:

If the proposal is complete and signed.

Whether the arithmetic calculations are correct.

- If there are variations.

Research must be carried out to check the situation of each company, whether it is on a negative international or national ineligibility list. Nothing should be mentioned about financial documentation, FGTS and INSS payments and other certificates from the Federal, State and Municipal Revenue Service.

The evaluation must be detailed and the Commission must only evaluate the proposals that substantially meet the technical specifications, disqualifying the others. However, everything is recorded in a report, including disqualifications.

At the end of all the checks, the Commission must draw up the evaluation and judgment report with the award of the winning company. The Project team must support the Commission by reviewing the report to verify compliance with the proposals. After reviewing the report, the Evaluation Committee must sign it and send it to the Project team together with the bids and other tender documents in its possession.

The project team will send a scanned copy of the evaluation and judgment report to IFAD for non-objection. All documents relating to the analysis must be recorded in the administrative file, including the non-objection. The Competent Authority must be asked to approve the tender, using the model below:

(BODY)

TERM OF APPROVAL

NATIONAL PUBLIC TENDER - NCB NO. XX/201X/(NAME OF BODY)

(NAME OF PROJECT) - LOAN AGREEMENT XXXX-BR

OBJECT: (INSERT)

The (INSERT PROJECT NAME) of the (INSERT BODY), in the use of his legal attributions, and in view of the records of the aforementioned process and the ADJUDICATION carried out by the EVALUATION COMMITTEE of the tender (Pages XXX, XXX), RESOLVES, in compliance with item X of the NCB Tender No. XX/201X/(BODY SIGN), TO APPROVE the tender in favor of the bidder. XXX, XXX) RESOLVES, in compliance with item X of NCB Notice No. XX/201X/(SIGN OF BODY), TO APPROVE the tender in favor of the bidder with the lowest overall price, the company (INSERT COMPANY NAME).

Brasília-DF, XX of (MONTH) of 201X.

(NAME AND SIGNATURE OF THE AUTHORIZING OFFICER)

(Position)

The project team must draw up a grant document and submit it to IFAD for non-objection, if previously reviewed.

After the non-objection, in the case of a prior review, publication of the Award document will be made within 2 weeks of the date of the non-objection, or, in the case of a subsequent review, within 2 weeks of the date of approval of the tender. Publication may be made in the Official Federal Gazette (DOU) and/or a national newspaper with wide circulation and/or a national website with free access authorized by IFAD. The Project's website may be indicated.

The Grant document must contain the proposal, the lot numbers, and the following relevant information:

- The name of each bidder who submitted a bid.
- The prices read out at the tender opening meeting.
- The evaluated prices of each tender examined.
- The name of the bidders whose bids were rejected as unsuitable or did not meet the qualification criteria, or were not evaluated, together with the reasons for this.
- The name of the winning bidder, the final total value of the contract, the duration, and a summary of the scope of the contract

Once this stage has been completed, we move on to the Contractual Phase.

Phase 3 NCB - Contract

25	Fill in the contractual details of the company awarded the contract and the Competent Authority for the project.
26	Forward the contract to the Legal Department for analysis
27	Issue a legal opinion on the contracting process.
28	Forward the contract and a copy of the award publications to IFAD.
29	Issue a non-objection to the contract.
30	Forward copies of the contract to the winning company for signature.
31	Sign and return the signed contract to the project.
32	Have the competent authority sign the contract.
33	Send a copy of the signed contract to the company.
34	Send a copy of the signed contract to IFAD.
35	Publish the extract of the contract in the DOU, if required by the organization's regulations.

The Project Team should request the details of the winning company and the Competent Project Authority to be included in the contract, as well as the details of the winning bid.

After this stage, the project team must arrange with the competent authority for the formalization of the contract manager and, if necessary, the respective inspectors.

Once the no-objection to the contract has been received, the signatures are obtained. First the company and then the Competent Authority. One signed copy is sent to the company and the other is recorded in the file.

13. DISCLOSURE PROJECT ACTIVITIES

IFAD's Policy on Document Disclosure, approved in 2010, adopted the principle of "presumption of full disclosure". It is mandatory to disclose key Project documents, when available, in a timely manner on the Government's website, IFAD's website and in places accessible to Project-impacted communities. Sharing these documents not only keeps all

parties informed but ensures their meaningful contribution to Project design and risk mitigation.

The documents disclosed must be presented in an accessible and culturally appropriate manner, giving due attention to the specific needs of the community groups that may be affected by the implementation of the Project (such as literacy, gender, language differences, accessibility of technical information or connectivity).

This disclosure should take into account any specific information needs of the community (e.g. related to culture, disability, literacy, mobility or gender). Special needs and limited access to web content should also be considered. In this regard, special attention will be paid to potential project participants: farmers, illiterate or technologically illiterate people, people with hearing or visual impairments, people with limited or no access to the internet and other groups with special needs.

The dissemination of information among these groups will be carried out by the Ceará state government. All accessible and locally available tools for dissemination will be used, including social media, local newspapers, leaflets, brochures, radio, and television. Special attention will be paid to publicizing the Project's environmental and social safeguards, including the complaints mechanism.

For documents to be prepared and disseminated after approval by the Executive Board, the details and deadline for delivery and dissemination of the documentation will be stipulated in the financing agreement.

14. GRIEVANCE REDRESS MECHANISMS

In accordance with IFAD's environmental and social policies, as well as the Access to Information Law (LAI) and the Law for the Protection and Defense of Public Service Users, a public and accessible grievance redress mechanism (GRM) will be made available to the Project's target groups for individuals, authorities or community representatives affected by the implementation of PPF II. This mechanism must be easily accessible to the population and have a rapid resolution, ensuring that complaints submitted are quickly analyzed and that situations are mutually agreed upon to the satisfaction of the parties involved.

The Project will take advantage of the SDA's consolidated system for receiving and handling complaints and denunciations, adopting the existing Ombudsman channel. The Project will promote an ongoing program to disseminate integrity policies, as well as training and guidance on the use of whistleblowing tools to communities and Project beneficiaries. All people potentially affected by the Project's activities will be informed and given clear instructions on what procedures should be followed for registering reports and complaints. This information will be made available in plain language. Grievance redress will be part of the review questions of IFAD's annual supervision missions.

Complaints can also be submitted through IFAD's Complaints Procedure, which allows individuals and communities to contact IFAD directly and make a complaint if they believe they are or may be adversely affected by an IFAD-funded project/program that does not comply with IFAD's Social and Environmental Policies and their mandatory aspects.

In line with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), as well as federal legislation and regulations related to the topic, IFAD, AECID and the Government of the State of Ceará will have zero tolerance. PPF II will ensure that adequate safeguard measures are in place for a safe and harassment-free work environment, including sexual harassment and freedom from sexual exploitation and abuse in its activities and operations. The Project must record reported cases and communicate to the competent authorities in the country, as provided for in

national legislation, and to IFAD so that they can take appropriate action based on the evidence.

Complaints and reports made to IFAD are confidential and can even be made anonymously through the following channels:

- Ethics Office confidential helpline: +39 06 5459 2525
- Confidential helpline of the Audit and Supervision Office: +39 06 5459 2888
Sending messages by WhatsApp: + 39 338 738 0924
- Mailing: anticorruption@ifad.org
- Ethics Office website: ifad.org/es/ethics

ANNEX I - TERMS OF REFERENCE FOR KEY PROJECT FUNCTIONS

The (minimum) key team of the PMU set up in the SDA will include the following members: i) General Project Coordinator, ii) Component 1 Manager; iii) Component 2 Manager; iv) Component 3 Manager; v) Procurement and Contracts Specialist, vi) Financial Management Specialist, vii) M&E Specialist, viii) Gender and PCTs Specialist; ix) Youth Specialist; x) Nutrition Specialist; xi) Knowledge Management Specialist; xii) South-South and Triangular Cooperation Specialist; and xii) Safeguards Specialist. Other specialists and consultants may be added to the team, including specialists who can accompany the work in the field directly in the territories. Below are the basic Terms of Reference for these key project functions.

PMU KEY POSITION ToRs				
Function	Key Responsibilities	Profile	Educational Requirements/ Training	Professional Experience
General Project Coordinator	<ul style="list-style-type: none"> - Managing the Project Management Unit technically, financially and administratively; - Coordinate and supervise the technical, procurement and contracting, monitoring and evaluation, administrative and financial areas to ensure that the plan is carried out on time and with quality; - Coordinating the preparation and execution of the Annual Work Plan and Budget, the Procurement and Contracting Plan, the budget, and the annual reports; - Accompanying, supporting, and integrating the work of the local office field teams; - Articulate the project with other existing programs and projects; - Establish partnerships with public and private organizations of interest to the project. 	<ul style="list-style-type: none"> - Ability to coordinate teams, leading them to work to achieve project results; - Capacity for communication and institutional coordination; - Ability to negotiate and establish agreements of interest to the project; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Higher education professional <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Graduates preferably in the fields of Economics, Agroecology, Agronomy, Public Administration and Sociology; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 7 years' experience in project management; <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Relevant experience in managing development projects, preferably with external funding.

		- Knowledge of public policies on the themes of the project.	- Postgraduate degree in the area of interest.	
Component 1 Manager	<ul style="list-style-type: none"> - Monitor field activities related to the implementation of component 1; - Providing guidance and technical support to local outsourced teams and rural beneficiary associations in identifying potential economic activities and preparing resilient production and agroforestry investment projects; - Draw up reports on the implementation of the Component's activities for which they are responsible and report to the Supervisor. 	<ul style="list-style-type: none"> - Ability to work as part of a team; - Ability to communicate and negotiate with family farmers and their organizations; - Knowledge of public policies for rural development, markets and technologies adapted to the semiarid region; - Knowledge of preparing proposals for rural productive investments. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Higher education professional, preferably in agroecology, agronomy, or related areas, with knowledge of agricultural and non-agricultural production activities in the Brazilian semi-arid region; <p>Desirable requirements:</p> <ul style="list-style-type: none"> Knowledge of the environment and/or climate. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - 4 years' experience in the profession. - Experience in developing productive arrangements for family farming and in formulating and implementing Rural Investment Projects.
Component 2 Manager (Profile of the water and sanitation)	<ul style="list-style-type: none"> - Issuing reports, technical reports, and opinions; - Carry out preliminary visits to check the feasibility of implementing projects; - Drawing up, supervising, coordinating, and executing projects, descriptive reports, calculation reports, accompanying charts and maps, budgets and reports related to the design and development of projects; 	<ul style="list-style-type: none"> - Knowledge of water supply and sewage system design; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Professional with a university degree in civil, sanitary or environmental engineering; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' work experience in the field of sanitation works supervision; - Registration with the Regional Council

specialist)	<ul style="list-style-type: none"> - Researching and proposing solutions for the economic and financial viability of projects, assessing the suitability of new alternatives; - Monitor and control the funds allocated to each project; - Supervising and managing water supply and sanitation works, carrying out and controlling measurements and receiving completed works; - Guide, supervise, monitor and inspect the execution of works and installation of equipment; - Develop technical studies for the replacement, renovation and reconditioning of machinery, equipment, and installations; - Developing and implementing technical and operational feasibility studies for preventive and corrective maintenance of machinery, equipment, and installations; - Monitor and control the installation, assembly, operation, repair and maintenance of machinery, equipment, and systems; - Draw up an investment plan for the program to promote greater energy efficiency; - Monitoring actions and setting targets to reduce energy consumption; - Identify and propose new technologies for water and sewage pumping installations; - Supervising the collection of water, soil, and sewage samples; - Standardization, measurement, and quality control. 		Desirable requirements: <ul style="list-style-type: none"> - Postgraduate degree in sanitation; 	of Engineering and Architecture - CREA; Desirable requirements: <ul style="list-style-type: none"> - More than 5 years' experience working in the field of sanitation works supervision; - Experience in hydraulics; - Experience in hydraulic modeling software for water and sewage systems; - Basic and/or advanced experience in office, autocad, civil 3D and BIM knowledge; - Experience in overseeing water supply and sewage systems.
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<p>Component 3 Manager</p>	<ul style="list-style-type: none"> - Planning training, environmental education and research activities, with special attention to technical assistance, contextualized education, climate change and innovation. - Support the formulation of the integrated KM, SSTC and Communication plan. - Design and coordinate training activities (courses, training, exchanges, etc.) for family farmers and rural extension teams. - Design and implement environmental, nutritional and climate education activities, with a gender focus. - Leading the design and monitoring of research and pilots focused on the project's priority areas. - Coordinating the planning and implementation of reference centers, facilitating discussions, and joint activities with the project's network of partners. - Document good practices, innovations and lessons learned using different KM tools. - Plan and lead the organization of learning events and south-south exchanges - Supporting the preparation of communication materials such as press releases, blogs, booklets, infographics, and content for social networks. 	<ul style="list-style-type: none"> - An excellent manager and coordinator. - Proven experience and ability to design KM and SSTC actions. - Ability to build partnerships and develop joint research and training activities. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Multidisciplinary professional with a university degree; <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Specialization or postgraduate studies in the areas of innovation, technical assistance and rural extension and/or the environment. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience with rural development projects involving technical assistance and rural extension, environmental education, the production of studies and south-south exchange activities. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Experience with projects aimed at strengthening the climate sustainability and resilience of family farmers and vulnerable groups such as women, young people and traditional communities.
<p>Procurement and Contract Specialists</p>	<ul style="list-style-type: none"> - Guide the teams in drawing up the Terms of Reference and Cost Estimates and Technical Specifications and Budgets; - Support the assembly of the Evaluation Committee and provide standard documents for carrying out the evaluations; - To guide the Evaluation Committee in the technical and financial analysis of proposals/budgets, on the rules of the tender they will be analyzing, on the preparation of tender 	<ul style="list-style-type: none"> - Ability to manage people and processes. - Proactivity - Ability to work under pressure. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Professional with a university degree. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 4 years' experience in Procurement and contract management.

<p>reports or calculation maps, on the procurement of goods, technical services and consultancy services planned for the project;</p> <ul style="list-style-type: none"> - Guide and coordinate the procurement and contracts of the co-executors; - Preparing the standard documentation for the PMU's tenders as planned for the project; - Monitoring the procurement and contracts of the government entities that are co-executing the project; - Preparing the Procurement Plans and supporting the preparation of the Project's Annual Work Plan and Budget; - Register the tenders in IFAD's OPEN system; - Managing contracts within the framework of the Project and IFAD's CMT system; - Meeting audit demands; - Make trips to attend to project activities when requested by the Coordinator; - Participate, when requested by the Coordination, in training related to contractual activities; - Support the IFAD team in carrying out training for the teams involved in procurement and/or contract management; - Carry out other activities related to the project's procurement and contracts; - Supporting IFAD missions on procurement. 	<ul style="list-style-type: none"> - Ability to use information technology. 	<p>Desirable requirements:</p> <ul style="list-style-type: none"> - Professional with a degree in one of the following areas: Administration, Accounting, Law or International Relations. - Procurement and contracts courses in the national rule. - Courses on procurement and contracts in accordance with the rules of international financial organizations (IFAD, IBRD, IDB, etc.). - Project procurement management course. - Course in procurement management for rural development projects. 	<p>Desirable requirements:</p> <ul style="list-style-type: none"> - Professional experience in tenders and contracts in the context of national funding projects. - Professional experience in tenders and contracts for external financing projects (IFAD, World Bank, IDB). - Professional experience in project planning and/or bidding and contract management. - Professional experience in planning activities, and/or managing tenders and contracts in external financing projects.
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<p>Financial Management Specialist</p>	<ul style="list-style-type: none"> - Maintaining accurate and complete accounting records - Ensuring adequate levels of internal control; - Participation in the preparation of the annual budget for approval by state gvt and submission of AWPB for No Objection to IFAD - Submitting the quarterly IFRS and presentation of justifications of expenditure disbursement requests based on the same; - Preparation of annual financial statements and submission to IFAD. - Coordinating timely submission of external audit including all funding sources and in accordance with Handbook for Financial Reporting and Auditing of IFAD-Financed Projects 	<ul style="list-style-type: none"> -Ability to coordinate a team and work closely with the PMU and SDA areas; - Knowledge of public finance management, accounting 	<p>Minimum requirements:</p> <p>Higher education professional in Business administration or accounting;</p> <p>Ability to use information technology</p>	<p>Minimum requirements:</p> <p>-</p> <p>Desirable requirements:</p> <p>- Minimum of 5 years' experience in activities related to the ToR.</p> <p>Desirable requirements:</p> <p>- Experience financial management of project financed with external funding from.</p>
<p>M&A Specialist</p>	<ul style="list-style-type: none"> - Provide technical guidance to the project teams to systematically obtain information on the monitoring of activities planned and carried out; - Interacting with Coordination and other areas to carry out Monitoring and Evaluation; - Supporting the preparation of Annual Work Plan and Budget with physical targets for all indicators. 	<ul style="list-style-type: none"> - Ability to interact with the team and provide the necessary technical guidance; - Knowledge of the design, adaptation and 	<p>Minimum requirements:</p> <p>- Higher education professional.</p> <p>Desirable requirements:</p> <p>- Professional with a degree in one of</p>	<p>Minimum requirements:</p> <p>- Minimum of 5 years' experience in activities related to the ToR.</p> <p>Desirable requirements:</p>

	<ul style="list-style-type: none"> - Supporting the preparation of the Semi-Annual Progress Report . - Supporting the preparation of the Project Completion Report (PCR). - Monitoring the project's Logical Framework, Annual Work Plan and Budget, goals, activities and results; - Carry out studies, opinions and other technical documents related to the area of Monitoring and Evaluation; - Support in drawing up the Terms of Reference for hiring a company to adjust the M&E system; - Monitoring the implementation of the system; - Providing technical support to the team in using the system; - Keeping the monitoring and evaluation system up to date with progress on the Logical Framework and Annual Work Plan and Budget indicators. - Support in drawing up the ToR and carrying out the Impact Assessment study (baseline, mid-term and final); 	<p>implementation of M&A IT systems;</p> <ul style="list-style-type: none"> - Knowledge of rural development projects; - Knowledge of environmental recovery projects. 	<p>the following areas: Social Sciences, Administration, Information Technology or Engineering.</p> <ul style="list-style-type: none"> - Courses on project monitoring and evaluation 	<ul style="list-style-type: none"> - Experience in monitoring and evaluating projects, preferably in the environmental and agrarian fields; - Experience in designing and implementing management information systems. - Experience in monitoring rural and social development projects.
<p>Gender and PCT Specialist</p>	<ul style="list-style-type: none"> - Draw up a strategy and action plan for Gender and PCTs, to serve women, traditional peoples and communities and the LGBTQIAPN+ community in the project's activities; - Ensure a gender and ethnic-racial approach in all areas of activity development; - Encourage and guide the involvement of women, LGBTQIAPN+ and PCTs in the project's activities; 	<ul style="list-style-type: none"> - Highly motivated and committed to poverty reduction, gender equality, the inclusion of PCTs and the LGBTQIAPN+ community; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Professional with a university degree; 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience working on gender and social inclusion issues;

	<ul style="list-style-type: none"> - Training for project teams and technical assistance teams on gender, diversity and traditional peoples and communities; - Strengthen an atmosphere of debate in the communities about the role of men and women in family farming; - Drawing up didactic-pedagogical tools based on the principles and methodology of the Project, to contribute to the processes of discussion and training of the teams; - Establish relationships with other projects and programs that enable mobilization activities, access to markets and public policies aimed at the following target groups of the project: women, PCTs and LGBTQIAPN+; - Drawing up reports on the implementation of activities. 	<ul style="list-style-type: none"> - Preferably of African descent and/or a member of traditional peoples and communities; - Mastery of computer tools. 	<p>Desirable requirements:</p> <ul style="list-style-type: none"> - Professional with preferably a degree in one of the following areas: Social Sciences, Anthropology, Rural Development, or related areas; - Specialization in rural development and/or social inclusion (gender, traditional peoples and communities, LGBTQIAPN+) - Training in technical courses on gender methodologies such as the Agroecological Logbook (CA), among others. - Ability to work in other languages such as English and Spanish is an advantage 	<p>Desirable requirements:</p> <ul style="list-style-type: none"> - Experience in agricultural and rural development projects; - Experience in projects that integrate gender targeting and considerations in all components/activities and in M&E; - Experience in working with Traditional Peoples and Communities; - Experience in designing and delivering training modules;
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<p>Youth Specialist</p>	<ul style="list-style-type: none"> - Advising and supporting the project coordinator, other members of the PMU and field officers in the effective integration of young people into project activities; - Drawing up and implementing a youth strategy and action plan; - Ensure that the goal-setting activities and the strategy and action plan for young people are reflected in the following: preparation of Annual Work Plan and Budget; design and implementation of the M&E system; project progress reports; and project supervision; - Together with the M&E and Knowledge Management team, establish an M&E system that captures and analyzes data disaggregated by youth; - Carry out regular assessments of young people's capacity and provide training for field staff, PMUs, implementing partners and service providers; - Establish links with other youth training and social inclusion programs implemented by state, national, international and intergovernmental agencies. 	<ul style="list-style-type: none"> - Highly motivated and committed to poverty reduction and youth inclusion; - Preferably of African descent and/or a member of traditional peoples and communities; - Mastery of computer tools. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Professional with a university degree. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Professional with preferably a degree in one of the following areas: Social Sciences, Rural Development, or related area; - Ability to work in other languages such as English and Spanish is an advantage. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience working on issues related to rural youth empowerment. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Professional with experience in implementing community and organizational strengthening actions with a focus on empowering rural youth; - Experience working with local communities and small producer organizations; - Experience in projects that integrate youth targeting and social inclusion considerations into
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				<p>their components, activities and M&E;</p> <ul style="list-style-type: none"> - It is desirable to have knowledge and experience of working with young women and young people from indigenous peoples and traditional communities.
<p>Nutrition Specialist</p>	<ul style="list-style-type: none"> - Mobilize stakeholders to carry out nutrition activities and ensure coordination to guarantee that they are carried out on time; - Contribute to reference surveys (questions, indicators, follow-up) that will help define target groups in the area of nutrition; - Update the nutrition strategy at the start of the project; - Coordinate and specify with partners the content of the activities and the logistical aspects of implementation; - Draw up regular quantitative and qualitative evaluations of nutrition activities, in close collaboration with the M&E Officer, the Youth, Gender and PCT Officers and the Project Coordinator; - If necessary, draw up ToR for the recruitment of service providers. 	<ul style="list-style-type: none"> - Ability to communicate orally or in writing to different audiences and stakeholder profiles. - Ability to work in a team and coordinate activities involving several participants; - Mastery of computer tools; - Familiarity with the problems of the Northeast region and with public social, 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Higher university degree with specialization in nutrition and food safety. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Specialization in rural development and/or social inclusion (gender, youth, traditional peoples and communities, LGBTQIAPN+). 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience in implementing projects focused on improving food and nutrition security. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Additional experience in projects to empower women, young people and PCTs, and in projects with a participatory approach in rural

		health, rural development and family farming policies.		and agricultural areas.
Specialist in Knowledge Management (KM), SSTC and Communication	<ul style="list-style-type: none"> - Establishing a collaborative environment by creating an infrastructure for managing and sharing knowledge, involving the different components of the project. - Define, together with the managers of each component, the strategic goals and objectives for the areas of SSTC, KM and communication. - Formulate the integrated KM, SSTC and Communication plan, with special attention to the aspects of sustainability, visibility, dissemination and scaling of successful actions. - Train the project team to ensure the correct sharing of knowledge and good practices, both inside and outside the project, through events, training and exchanges. - Supporting the documentation of good practices, innovations and lessons learned using KM tools. - Plan and lead the organization of learning events and south-south exchanges on key themes to be defined jointly with the coordinator and managers. - Planning and coordinating the layout and dissemination of studies and publications, with special attention to results, impacts and strategic partnerships. 	<ul style="list-style-type: none"> - Excellent communicator and articulator. - Proven experience in integrating SSTC, KM and communication issues into project management architecture, with special attention to financial and M&E aspects. - Ability to build partnerships and strategic networks. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Multidisciplinary professional with a university degree. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Specialization or postgraduate studies in international cooperation and/or communication. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience in rural development projects, including planning and coordinating Knowledge Management, South-South Cooperation and communication actions. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Experience with projects aimed at the strengthening, sustainability and climate resilience of family farmers and vulnerable groups such as women, young people and

	<ul style="list-style-type: none"> - Leading the preparation (content and design) of communication materials such as press releases, blogs, booklets, infographics and content for social networks. - In collaboration with the coordinator, managers and strategic partners, maintain an up-to-date calendar of events and formulate promotional materials. 			traditional peoples and communities.
Safeguard Specialist	<ul style="list-style-type: none"> - Ensure compliance with the Project's contractual and operational provisions regarding the identification, management and mitigation of the Project's social and environmental impacts. - Train and/or promote the ongoing training of project teams (e.g. ATER and component teams) on the project's safeguard requirements and procedures. - Monitor and report periodically (in the Project progress reports) on compliance with the Project safeguards. - To assess the adequacy of the Project's safeguarding instruments (ESMF, ESMP, TAA, etc.) and propose any adjustments, adjustments and improvements. - Document good practices and challenges in implementing the project to promote the continuous improvement of the safeguards function. 	<ul style="list-style-type: none"> - Technical mastery of issues relating to the management of social and environmental impacts of projects (standards and procedures). - Ability to communicate orally or in writing to different audiences and actor profiles. - Ability to work in a team and coordinate activities involving several participants. - Mastery of computer tools. 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - Multidisciplinary professional with a university degree. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Postgraduate studies in the following areas: Natural Sciences, Environmental Management, Environmental Law, Social Sciences . 	<p>Minimum requirements:</p> <ul style="list-style-type: none"> - At least 5 years' experience in equivalent activities. <p>Desirable requirements:</p> <ul style="list-style-type: none"> - Experience in safeguard management /ESG.

ANNEX II - ELIGIBILITY SELF-CERTIFICATION FORM

Standard Bidding Document
Contracts
Self-certification form - Contract stage

1st Edition

December 2020

This form must be included as an annex to the contract even when national bidding documents have been used. The use of this self-certification form is mandatory for all procurements carried out in IFAD-funded or administered projects and is included in IFAD's standard bidding documents.

Terms that are used but not defined in this Annex shall have the meaning ascribed to them in the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC), the IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations, the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, or the Financing Agreement or related agreements.

A. IFAD's rights

1. IFAD has jurisdiction to investigate allegations and other indications of prohibited practices and to impose sanctions on third parties (including contractors) for such practices in connection with an IFAD-financed and/or administered operation or activity.
2. IFAD may unilaterally recognize exclusions imposed by other multilateral development banks if such exclusions meet the mutual recognition requirements under the Agreement for Mutual Execution of Exclusion Decisions²³.

B. Compliance with IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations and the Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse

3. The contractor must fully comply with IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations (the "Anti-Corruption Policy", accessible at www.ifad.org/anticorruption_policy) and its Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Sexual Abuse (the "SH/SEA Policy") (accessible at <https://www.ifad.org/en/document-detail/asset/40738506>). Failure to comply with these policies may result in administrative measures, including suspension or termination of the contract between the contractor and the procuring entity.
4. The contractor, when submitting the signed contract agreement to the contracting authority, must attach the completed self-certification form set out in Annex X (i) [adapt reference].
5. The contractor shall cooperate fully with any investigation conducted by IFAD, as required in accordance with IFAD's policies and procedures, including by: (i) making personnel available for interviews and providing full access to any and all accounts, facilities, documents and records (including electronic records) relating to the relevant IFAD-financed and/or managed operation or activity, and (ii) having such accounts, facilities, records and documents audited and/or inspected by IFAD-appointed auditors and/or investigators.
6. The contractor must keep all accounts, documents and records relating to an operation or activity financed and/or administered by IFAD for a minimum period of three years after the conclusion of the contract.
7. The contractor shall promptly report to IFAD any allegations or other indications of prohibited practices, as defined in the Anti-Corruption Policy, that come to its attention during the performance of the contract. Instructions for reporting such allegations can be found here: <https://www.ifad.org/en/anti-corruption>.
8. The contractor shall promptly report to IFAD or the procuring entity any allegations or other indications of sexual harassment and sexual exploitation and abuse, as defined in the HS/SEA Policy, that come to its attention during the performance of the contract. Instructions for reporting such allegations can be found here: <https://www.ifad.org/en/ethics>

C. Continuous flow provisions

9. In any subcontract entered into by the contractor, as permitted by this contract, the contractor shall ensure the inclusion of all the provisions contained in sections (A) to (C).

²³ The Agreement on Mutual Enforcement of Exclusion Decisions was concluded by the World Bank Group, the Inter-American Development Bank, the African Development Bank, the Asian Development Bank and the European Bank for Reconstruction and Development. Further information can be found at: <http://crossdebarment.org/>.

Self-certification form

This self-certification form must be completed by the contractor. The contractor must send the completed form together with the signed contract agreement to [insert name of contracting entity]. Instructions for completing this form are provided below.

Full legal name of the contractor:	
Full legal name of the contractor's legal representative and position:	
Full name and contract number:	
Project with which the contract was signed:	
Country:	
Date:	

I certify that I am the authorized representative of [name of contractor], and that the information provided herein is true and accurate in all material respects and I understand that any misrepresentation, misstatement or failure to provide the information requested in this self-certification may result in sanctions and remedies, including suspension or termination of the contract between the contractor and the procuring entity, as well as permanent ineligibility to participate in activities and operations financed by IFAD and/or managed by IFAD, in accordance with the IFAD Procurement Guidelines, the IFAD Procurement Manual and other applicable IFAD policies and procedures, including the IFAD Policy on the Prevention of Fraud and Corruption in its Activities and Operations (accessible at www.ifad.org/anticorruption_policy) and IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (accessible at <https://www.ifad.org/en/document-detail/asset/40738506>).

I hereby certify that I am the authorized representative of [name of the contractor], as well as that the information provided herein is true and accurate in all material respects and understand that any material misstatement, misrepresentation or failure to provide the information requested in this self-certification may result in sanctions and remedies, including the suspension or termination of the contract between the contractor and the procuring entity, as well as the permanent ineligibility to participate in IFAD-financed and/or IFAD-managed activities and operations, in accordance with the IFAD Procurement Guidelines, the IFAD Procurement Handbook and other applicable IFAD policies and procedures, including IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations (accessible at www.ifad.org/anticorruption_policy) and its Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (accessible at <https://www.ifad.org/en/document-detail/asset/40738506>).

Authorized signature: _____ Date: _____

Printed Name of Signatory: _____

- The contractor certifies that it, including its director(s), partner(s), owner(s), key personnel, agents, sub-consultants, subcontractors, consortia and joint venture partners have **NOT** engaged in fraudulent, corrupt, collusive, coercive, or obstructive practices in connection with this procurement process and this contract.

- The contractor declares that the following criminal convictions, administrative sanctions (including exclusions under the Agreement for Mutual Enforcement of Exclusion Decisions or the "Cross Exclusion Agreement")²⁴ and/or temporary suspensions have been imposed on the contractor and/or any of its directors, partners, owners, key personnel, agents, sub-consultants, subcontractors, consortia, and joint venture partners:

Nature of the measure (i.e., criminal conviction, administrative sanction, or temporary suspension)	Imposed by	Name of the convicted, sanctioned, or suspended party (and relationship to the bidder)	Reasons for the measure (i.e., procurement fraud or corruption in the execution of the contract)	Date and time (duration) of the measure

If there are no criminal convictions, administrative sanctions, or temporary suspensions, indicate "none".

- Contractor certifies that its officer(s), owner(s) and personnel, and the personnel of its agents, subconsultants, subcontractors, consortiums and joint venture partners are **NOT** subject to a criminal conviction, administrative sanctions, or investigations of incidents of sexual harassment and sexual exploitation and abuse.
- The contractor certifies that it, its owner(s), agents, sub-consultants, subcontractors, consortia, and *joint venture* partners have **NO** actual, potential, or reasonably perceived conflicts of interest and, specifically, that they:
 - They do not have any actual or potential, and do not reasonably appear to have, at least one controlling shareholder in common with one or more other parties in the bidding process or in the execution of the contract;
 - They do not have any actual or potential, and do not reasonably appear to have the same legal representative as another bidder for the purposes of this tender or performance of the contract;
 - They do not have any actual or potential, and do not reasonably appear to have a relationship, directly or through common third parties, that would put them in a position to have access to improper or undisclosed information or influence over the bidding process and the execution of the contract, or to influence the decisions of the procuring entity regarding the selection process for this procurement or during the execution of the contract;

²⁴ The Agreement on Mutual Enforcement of Exclusion Decisions was concluded by the World Bank Group, the Inter-American Development Bank, the African Development Bank, the Asian Development Bank and the European Bank for Reconstruction and Development. Further information can be found at: <http://crossdebarment.org/>.

Does not participate and does not appear to potentially or reasonably participate in more than one bid in this process; and

Does not have any actual or potential relationship, and does not reasonably appear to have, a business or family relationship with a member of the board of directors of the acquiring entity or its personnel, the Fund or its personnel, or any other individual who was, has been or may reasonably be directly or indirectly involved in any part of (i) the preparation of the bid document, (ii) the selection process for this acquisition, or (iii) the execution of the contract, unless an actual, potential or reasonable conflict arising from this relationship has been explicitly authorized by the Fund in writing.

[The contractor declares the following actual, potential or reasonably perceived conflicts of interest, which may affect, or may reasonably be perceived by others to affect, impartiality in any matter relevant to the procurement process, including the selection process and the execution of the contract, with the understanding and acceptance that any action on this disclosure will be entirely at the discretion of the Fund:
[provide detailed description of any actual, potential, or reasonably perceived conflicts of interest, including their nature and the personnel, owner(s), agents, subconsultants, subcontractors, consortia or joint venture partners affected].

The contractor certifies that NO gratuities, fees, commissions, gifts, or anything else of value, other than those indicated in the tender, have been paid or exchanged or are being paid or exchanged in respect of this procurement process and this contract.

OR

[To be filled in only if the previous box is not checked] The contractor declares that the following gratuities, fees, commissions, gifts, or anything else of value have been exchanged, paid or are to be exchanged or paid in connection with this procurement process and this contract:

- [Recipient Name / Address / Date / Reason / Value]

- [Recipient Name / Address / Date / Reason / Value]

The contractor acknowledges and agrees to notify the acquiring entity in the event of any material change to this self-certification form during the term of the contract.

Instructions for filling in the self-certification form

The World Bank's list of ineligible companies and individuals is a searchable database that returns a page of positive or negative search results after you submit a name to be searched in order to document eligibility.

The contractor must print, date, and attach the results page(s) to the self-certification form, which must contain "no matching records found".

If records are found - i.e. the results page(s) show that one or more individuals or entities, including the contractor itself, are ineligible for World Bank contracts on the basis of "cross-exclusion", the contractor must provide a detailed account of these sanctions and their

duration, as applicable, or notify the contracting entity if the contractor believes the finding to be a "false positive".

The procuring entity will determine whether to continue with the contract or allow the future contractor to make a substitution. This determination will be made on a case-by-case basis and will require IFAD's approval, regardless of the estimated value of the proposed contract.

All these documents must be kept by the contractor as part of the general record of the contract with the contracting authority for the duration of the contract and for a minimum period of three years.

ANNEX III - MODEL TERM OF REFERENCE BY TIME (UGP KEY TEAM)

(Model TOR for Individual Consultancy - By Time)

(There may be a general cover with the name of the Contracting entity, but at least a back cover with this information on the IFAD loan or grant and the object to be contracted)

(DRAFT)

LOAN AGREEMENT NO.

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT - FIDA

TDR CODE /201X

TERMS OF REFERENCE FOR HIRING (...)

SPECIALIZED TECHNICAL CONSULTANT

FIDA MODE FIXED-TERM CONTRACT

(Month)/201X

OBJECT

It must contain what is hoped to be achieved by contracting the services. It should be written simply, directly, and objectively. It should be set out in one paragraph.

CONTRACTING FRAMEWORK

Here you should provide brief, basic information about the project, such as its general objective (which is set out in the Loan Agreement), and inform the component and/or sub-component to which the contracting is inserted.

BACKGROUND AND CONTEXT

In this section, it is necessary to give the history of the problem, or the history leading up to the problem. Laws, historical facts, various data, etc. should be mentioned. It must contain the beginning, development and conclusion that culminates in the problem and the need for a solution, through the project, with the contracting of TDR services. Official texts must be referenced.

When giving the history of the problem, describe it up to the present day, tying up the text at the end with the need to hire someone to solve or help solve the problem.

BACKGROUND

It must contain the reasons why the services are needed - the need to solve the problem, highlighting the importance of the solution. This can be of a legal nature (by force of law), or operational, etc.

SCOPE

Inform the beneficiary of the contract, which priority bodies and/or states, the limits within which the objective must be pursued, in order to define and delimit the area in which the consultancy will operate.

This section usually includes the geographical scope, the area of knowledge to be considered, the level of detail and the timeframe.

ACTIVITIES

All the possible activities that the consultant will carry out to advise the project must be clearly described.

a) Activities are specific actions to be carried out and cannot be generic. They must make it possible to estimate the hours required to carry them out and this will also make it easier to construct the cost estimate for the services. They always begin with a verb in the infinitive (elaborate, develop, carry out, draft, research, etc.).

b) You should try to detail everything that is needed to carry out the service (e.g., planned meetings, consultations, visits, data collection, preparation of reports, visits, etc.), so that bidders are clear about the work to be carried out and can calculate their costs and propose their methodology.

METHOD OF PAYMENT FOR SERVICES

It can be used as a standard text:

Payments will be made according to the number of hours worked in the month, after receipt, analysis, and approval of the monthly activity reports, which will include daily activities versus hours worked.

The reports must be delivered no later than XX (xxxx) working days after the end of the working month. The reports must be analyzed within XX (xxxx) working days of receipt. After approval, payments will be made to the Contractor within XX (xxxxx) working days.

CONTRACT TERM

It can be used as a standard text:

The services can be carried out until the end of the project. However, the contract provides for a six-monthly performance evaluation which, if positive, will enable the services to continue or to be terminated, if negative.

TRAVEL FORECAST

Tell us if travel is planned and, if so, how it will be handled, whether by advance or reimbursement, etc.

LOCATION OF SERVICES

Provide the name of the location where the work will be carried out. Please also state whether the consultant will have to live near the location of the services because they will have to carry out the contract in person. If there is a need for travel and accommodation, this should be mentioned in the travel forecast item. If the consultant can perform the services remotely or partially remotely, this should be made clear in this item.

CONSULTANT QUALIFICATIONS

The methodology for evaluating CVs for individual consultancies must ensure that the most experienced consultant is selected, who has the best qualifications and is fully capable of carrying out the job.

It should be used as the default text:

This selection will be open to professionals with at least the qualifications described below, which will be verified by applying the evaluation criteria, distributed between academic training and experience, with 30% and 70% of the total points respectively:

a) Minimum (mandatory) requirements:

- Education: Professional with a degree in one of the following areas: xxxxxxxxx, xxxxxxxxxxxxxxxxxxxxxxxx, xxxxxxxxxxxxx.
- Experience: Minimum of XX (xxxx) years' professional experience in xxxxxxxxxxxxx activities.

(Insert the minimum (e.g., 2 years, 3 years), whoever has the most experience will win. You can even not limit the minimum to the number of years and just state that you have experience related to the activities and products of the TOR)

b) Desirable requirements (Scorable):

- Education: postgraduate degree in xxxxxx areas, courses, and experience in xxxxxxxxxxx and experience in xxxxxxxxxxxxxxxxxxxxxxxx.
- Experience: Professional experience in the activities of xxxxxxxxxxx, xxxxxxxxxxx and xxxxxxxxxxx.

Candidates who achieve the minimum 70 points in the cut-off score will qualify.

CVs must be detailed, giving details of the work carried out and the activities and products produced.

They must allow the experience to be counted so that the Evaluation Committee can analyze it properly. To do this, the start and end date of each contract or activity or product related to the TOR must be clear.

(These are the items that will be scored and all the desired training and experience must be entered here. In the Evaluation Matrix, each piece of information is separated out and assigned the respective threshold score)

INPUTS SUPPLIED BY THE CONTRACTOR

The documents, reference studies and other elements that will be available to the consultant to facilitate the execution of the work, and where they will be available, must be informed.

Other items made available to the consultant should also be informed, if applicable: physical structure, logistical support, vehicles for business trips, fuel vouchers, computer programs or any other input.

SUPERVISION AND MONITORING

This section tells you who will supervise the contract and monitor the execution of the services, and can indicate names, positions, areas, bodies, and e-mails. How monitoring and meeting logistics will take place.

GENERAL CONSIDERATIONS

This item may include the Anti-Fraud and Corruption and Anti-Harassment and Sexual Exploitation clauses if the contract to be used does not contain them, as the TOR will be an integral part of the contract.

You can use it as standard text:

The Contractor shall be responsible for paying all tax, social and labor charges relating to this contract, in accordance with the Brazilian laws governing the hiring of freelancers.

The Contractor will not be provided with social insurance (INSS) for accidents at work, health, accidents or life, nor will he be granted vacation, sick leave or any other emoluments during the term of the Contract.

The Contractor shall carry out the activities set out in these Terms of Reference in accordance with the highest standards of professional and ethical competence and integrity.

ANNEX IV - MODEL TERMS OF REFERENCE BY PRODUCT (ONE-OFF SERVICES)

(Model TOR for Individual Consultancy Product Modality)

There may be a front cover with the name of the Contracting Authority, but at least a back cover with this information on the IFAD loan or grant and the object to be contracted)

(DRAFT)

LOAN AGREEMENT NO.

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT - FIDA

TDR CODE /201X

TERMS OF REFERENCE FOR HIRING (...)

SPECIALIZED TECHNICAL CONSULTANT

(Month)/201X

OBJECT

It should contain what is expected to be achieved by contracting the services, i.e., what is expected as a result of producing all the products. It should be written simply, directly, and objectively. It should be set out in one paragraph.

CONTRACTING FRAMEWORK

Here you should provide brief, basic information about the project, such as its general objective (which is set out in the Loan Agreement), and inform the component and/or sub-component to which the contracting is inserted.

BACKGROUND AND CONTEXT

In this section it is necessary to give the history of the problem, or the history leading up to the problem. Laws, historical facts, various data, etc. should be mentioned. It must contain the beginning, development and conclusion that culminates in the problem and the need for a solution, through the project, with the contracting of TDR services. Official texts must be referenced.

When giving the history of the problem, describe it up to the present day, tying up the text at the end with the need to hire someone to solve or help solve the problem.

BACKGROUND

It must contain the reasons why the services are needed - the need to solve the problem, highlighting the importance of the solution. This can be of a legal nature (by force of law), or operational, etc.

SCOPE

Inform the beneficiary of the contract, which priority bodies and/or states, the limits within which the objective must be pursued, in order to define and delimit the area in which the consultancy will operate.

This section usually includes the geographical scope, the area of knowledge to be considered, the level of detail and the timeframe.

ACTIVITIES

The tasks that the consultant needs to carry out in order to produce each product must be clearly described. For didactic reasons, it is important to break down the activities by product.

Once the products have been defined, all the activities required for their preparation, completion and delivery must be described.

Activities are specific actions to be carried out and cannot be generic. They must make it possible to estimate the hours it will take to carry them out, and this will also make it easier to construct the cost estimate for the services. They always begin with a verb.

An attempt should be made to detail everything needed to carry out the service (e.g., planned meetings, consultations, etc.), so that bidders are clear about the work to be carried out and can calculate their costs and propose their methodology.

METHODOLOGICAL GUIDELINES

In this section, the services can be given direction, such as a planning horizon, prioritization criteria and more general guidelines to be considered. However, it leaves the

consultant completely free to propose a methodology for carrying out the work. It is not possible to determine the methodology that the consultant should follow, only to give guidelines.

PRODUCTS

This is where you tell us the title of each product and what it should contain, i.e., a detailed description and its contents. Remember that the product will become a report, a physical document, so it needs a title.

They must be arranged in order of delivery according to the execution time schedule.

The activities linked to each product can be referenced by informing the letters and/or numbers (itemization) of the activities that refer to its construction.

The number of products must be consistent with the total duration of the contract. They must be designed in such a way that the contractor has enough time to prepare the report, produce it, review it, and approve it. Pay attention to the principle of reasonableness, making the construction of the product compatible with realistic delivery deadlines.

HOW THE PRODUCTS ARE PRESENTED

You can use the standard text, if applicable in whole or in part:

The products must be presented in Portuguese (Brazil) and must be objective, in clear and didactic language, providing a perfect understanding. They must be in line with the work schedule established in the Contract and with the Terms of Reference.

The products specified in the TOR must be submitted to the XXXXX sector or area in advance of the stipulated delivery date in printed form or by e-mail, in draft form, for analysis. Once approved, it must be delivered definitively, in XX (xxx) original copies in printed form (A4 format paper, bound with a plastic cover and spiral) and with the content recorded on magnetic media, in the software defined by the (Body).

The Contractor shall analyze the documents within XX (xxx) days of delivery of the product.

Reports must be prepared in accordance with the standards and procedures laid down by ABNT.

EXECUTION TIME

This section should contain a table showing the execution schedule for each product by time. It may also establish the time available to the contractor for analyzing and returning the document in draft form. Deadlines are usually defined in months.

You can use it as standard text:

The total period for carrying out the services provided for in these Terms of Reference is XX (xxxxx) months, according to the following schedule:

PRODUCT/ MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RT - 1															
RT - 2															
RT - 3															
RT - 4															
RT - 5															
RT - 6															
RT - F															

The periods set out above for carrying out the services provided for in these Terms of Reference shall run from the date the contract is signed.

PERCENTAGE PAYMENTS FOR PRODUCTS

The definition of percentages for the purpose of paying for products must be linked to the budget and the complexity of each product. It is prudent to leave higher percentages until the end of the contract.

The Financial Schedule must be presented in tabular form with the respective percentages, without the inclusion of values.

You can use it as standard text:

The costs include the remuneration for the services, as well as all the social charges stipulated in tax and labor legislation.

The costs of preparing the products contained in this TOR will be borne by the contractor.

Payment will be made within XX days of the date of approval of the reports. If necessary, the products should be adjusted by the Contractor at no additional cost to the Employer. Payments will be made to the Contractor based on the Products (technical reports) submitted and approved by the Project Coordinator, in accordance with the progress of the services and the Product Payment Schedule specified below:

PRODUCTS	EXPECTED DELIVERY OF PRODUCTS	PERCENTAGE OF PAYMENTS
RT - 1	30 days	9%
RT - 2	120 days	20%
RT - 3	180 days	15%

RT - 4	240 days	12%
RT - 5	300 days	12%
RT - 6	360 days	12%
RT - FINAL	450 days	20%
TOTAL		100%

TRAVEL FORECAST

If it is necessary to plan journeys, the planning required to carry out the services must be drawn up, using the table below.

Excerpt	Estimated period (displacement)	No. of Expected Per Diems	Purpose of Trip	Estimated Values (R\$)		
				Passage	Daily rates	Total

You can use it as standard text:

Travel expenses in terms of airfare, transfers, meals, and accommodation must be provided for at the time of contracting.

If the consultant (candidate) does not live in the place where the services are to be performed, the contractor will pay for travel, including travel to attend technical/contractual meetings and to carry out training.

In order to carry out the planned activities, the selected candidate must define, together with the Contractor's technical team, the planning and budget for each journey, taking into account the actual place of origin of their trip. Changes to the travel route and the estimated travel period are possible provided they are duly justified and agreed between the parties.

Expenses for airfare, travel and accommodation are generally not included in the value of the products, but are paid separately, but add to the total cost of the activity set out in the Procurement Plan.

LOCATION OF SERVICES

Provide the name of the location where the work will be carried out. Please also state whether the consultant will have to live near the location of the services because they will have to carry out the contract in person. If there is a need for travel and accommodation, this should be mentioned in the travel forecast item. If the consultant can perform the services remotely or partially remotely, this should be made clear in this item.

CONSULTANT QUALIFICATIONS

The methodology for evaluating CVs for individual consultancies must ensure that the most experienced consultant is selected, who has the best qualifications and is fully capable of carrying out the job.

It should be used as the default text:

This selection will be open to professionals with at least the qualifications described below, which will be verified by applying the evaluation criteria, distributed between academic training and experience, with 30% and 70% of the total points respectively:

a) Minimum (mandatory) requirements:

- Education: Professional with a degree in one of the following areas: xxxxxxxx, xxxxxxxxxxxxxxxxxxxxxxxx, xxxxxxxxxxxxxxx.
- Experience: Minimum of XX (xxxx) years' professional experience in xxxxxxxxxxxxxxx activities.

b) Desirable requirements:

- Education: postgraduate degree in xxxxxx areas, courses, and experience in xxxxxxxxxxxxxxx and experience in xxxxxxxxxxxxxxxxxxxxxxx.
- Experience: Professional experience in the activities of xxxxxxxxxxxxxxx

CVs must be detailed, allowing experience to be counted, so that the Evaluation Committee can analyze them properly.

INPUTS SUPPLIED BY THE CONTRACTOR

The documents, reference studies and other elements that will be available to the consultant to facilitate the execution of the work, and where they will be available, must be informed.

Other items made available to the consultant should also be informed, if applicable: physical structure, logistical support, computer programs or any other input.

SUPERVISION AND MONITORING

This section tells you who will supervise the contract and monitor the execution of the services, and can indicate names, positions, areas, bodies, and e-mails. How monitoring and meeting logistics will take place.

KNOWLEDGE TRANSFER

If knowledge transfer is planned, the information on the training or event in which the transfer will take place must be specified, stating the target audience, the number of people to be trained, the number of classes or events, the location and the material required.

For the transfer of knowledge, it should be made clear whether there will be inputs provided by the Contractor, or whether something will be the responsibility of the contractor, not forgetting to link the information to the item "Inputs Provided by the Contractor", if necessary.

PROPERTIES

You can use it as standard text:

All pieces produced by the contractor as a result of these Terms of Reference, including originals and digital files, must be delivered before the end date of the contract and will

belong to the Contractor. They may be used by the consultant for other purposes with the express authorization of the Contracting Party.

The Contractor shall not assign any information and/or documents, which are the object of this Contract, without prior authorization from the Employer.

GENERAL CONSIDERATIONS

You can use it as standard text:

The Contractor shall be responsible for paying all tax, social and labor charges relating to this contract, in accordance with the Brazilian laws governing the hiring of freelancers.

The Contractor will not be provided with social insurance (INSS) for accidents at work, health, accidents or life, nor will he be granted vacation, sick leave or any other emoluments during the term of the Contract.

The Contractor shall carry out the activities set out in these Terms of Reference in accordance with the highest standards of professional and ethical competence and integrity.

This item may include Anti-Fraud and Anti-Corruption Clauses if the contract to be used does not contain them.

ANNEX V - CURRICULUM EVALUATION MATRIX MODEL

EVALUATION MATRIX

INTERNAL USE - CANNOT BE DISCLOSED BEFORE THE END OF THE SELECTION PROCESS

MINIMUM FINAL MARK FOR CANDIDATE ACCEPTANCE: 70 POINTS²⁵

NAME OF EVALUATOR:

NAME OF THE CONSULTANT EVALUATED:

A-DESIRABLE ACADEMIC CRITERIA - MAXIMUM 30 POINTS ²⁶

CRITERIA		POINTS
1	Academic background in agricultural sciences.	0 to X
2	Academic background in the environmental field.	0 to X
3	Technical courses in agricultural sciences.	0 to X
4	Technical courses in the environmental field.	0 to X
Total (maximum 30 points)		30

JUSTIFICATION FOR SCORING - ACADEMIC CRITERIA

CRITERIA	
1	
2	
3	
4	

²⁵ It can be 70 points, but the minimum is 60.

²⁶ **Guidance to the evaluator:** It is up to each evaluator, in their individual evaluation, to distribute the points, respecting the maximum score, according to the consultant's academic suitability for the specific consulting task, as described in the Terms of Reference. It is not expected that all professionals who meet the minimum requirements will receive the same score, but rather that the evaluator will award the best score to the best candidate, considering the relevance of the consultant's curriculum to the proposed consultancy service and evaluating aspects such as the area of training, the training institution, etc. Successively lower scores are awarded to the other candidates. It is important to note that the best score does not mean the maximum score, but rather the highest score among the candidates, which may or may not reach the maximum score available.

B-DESIRABLE EXPERIENCE CRITERIA - MAXIMUM 70 POINTS²⁷

CRITERIA		POINTS
1	Professional experience in agricultural projects (project design, execution, supervision, etc.);	0 to X
2	Professional experience in the agricultural production sector;	0 to X
3	Professional experience in marketing;	0 to X
4	Professional experience focused on resilience for small farmers;	0 to X
Total (maximum 70 points)		70

JUSTIFICATION FOR SCORING - EXPERIENCE CRITERIA

CRITERIA	
1	
2	
3	
4	

²⁷ **Guidance to the evaluator:** It is up to each evaluator, in their individual evaluation, to distribute the points, respecting the maximum score, according to the suitability of the consultant's experience for the specific consulting task, as described in the Terms of Reference. It is not expected that all professionals who meet the minimum requirements will receive the same score, but rather that the evaluator will award the best score to the best candidate, considering the relevance of the consultant's CV to the proposed consultancy service and evaluating aspects such as area of experience, length of experience, etc. Successively lower scores are awarded to the other candidates. It is important to note that the best score does not mean the maximum score, but rather the highest score among the candidates, which may or may not reach the maximum score available.

**ANNEX VI - GENERAL PROCUREMENT NOTICE – GPN
BRAZIL**

(INFORM THE MINISTRY)

FEDERATIVE REPUBLIC OF BRAZIL

PROJECT (INFORM)

GENERAL PROCUREMENT NOTICE

Loan No. (INSERT)

THE **FEDERATIVE REPUBLIC OF BRAZIL** received financing in the amount of US\$ (INFORMAR) from the International Fund for Agricultural Development to finance the **PROJECT (INFORM)**, and intends to apply part of the resources in payments for goods, services and consultancies to be acquired within the scope of this project .

The project includes the following components with activities to be implemented under the responsibility of (INFORM MINISTRY AND SECRETARIAT):

(INFORM COMPONENTS)

Procurement services and consultancy will be conducted through the procedures specified in the Letter of Consultation, relating to national procedures that comply with IFAD policy on procurement.

The project includes the following components with activities to be implemented under the responsibility of (INFORM MINISTRY AND SECRETARIAT):

- (INFORM COMPONENTS)

Specific acquisition notices are announced on the websites of the Project's partner entities, and in newspapers with large national circulation, and (INFORM GOVERNMENT WEBSITES WHERE THE BIDS WILL ALSO BE ADVERTISED).

Main procurement planned for the project:

- (INFORM THE MAIN BIDS AND, IF POSSIBLE, EXPECTED START DATES)

Eligible bidders interested in participating in the competitions who require additional information should contact the address below.

(INSERT ORGAN)

(CONTACT NAME)

(OFFICE)

Telephone: (55-61) (INFORM)

Email: (INFORM)

Website: (INFORM)

(INSERT COMPETENT AUTHORITY)

(position and body)

ANNEX VII - INTEGRATION OF SECAP RISKS INTO PROCUREMENT PLANS



Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty
Integration of SECAP risks into Procurement plans

Document Date: 22/05/2024

Project No. 2000004317

Latin America and the Caribbean
Programme Management Department

Introduction

This document provides indication to the SPO on the SECAP risks to be incorporated into procurement plans. While the general integration of SECAP requirements into procurement documents is described into ANNEX 4, Volume 1 of the SECAP, the project specific risks are as identified by the SECAP online tool. The ES specialist has identified, through the SECAP environmental and social screening checklist, the issues in the table below that need to be mitigated through procurement. In case the SPO has ambiguity as to the guidance provided by the ES specialist in the rightmost column of the below Results Table, then the SPO will need to collaborate with the ES specialist and relevant members of the PDT in order to reach an agreement as to how these ES issues can be dealt with best through procurement mitigation measures that the Borrower must be required to put in place with respect to procurement parameters like:

1. Technical Specifications
2. Bidder Qualification
3. Bid Evaluation Criteria
4. Contract Clauses

For Example, if use of harmful types of pesticide is an issue in the project area, then it can be dealt with through the specifications of the pesticide and both the ES specialist and the SPO will agree that the project will use a “WHO-FAO approved pesticide and that WHO-FAO codes for safe labelling, packaging, handling, storage, application and disposals of pesticide are respected”. If the project involves work in a sensitive cultural heritage area or an area where biodiversity is to be protected, then the successful past experience of the contractor in working in such zones is critical and the ES specialist will select “Bidder qualification” and “Bid Evaluation Criteria”. If labour conditions or indigenous peoples’ rights are often compromised in the project’s area, then the ES specialist may select “Contract Clauses” and give whatever further guidance is possible for SPO. If deforestation or extensive use of natural resources in the project area is an issue identified by the ES specialist, then the ES specialist will chose “specifications” and “Bid Evaluation Criteria” and agree with the SPO to specify legally-harvested timber (or timber certified with the relevant label) and agree as to the evaluation criteria to be used to promote resource efficiency (e.g. evaluation criteria to favour energy efficient pumps, efficient transformer sub-stations, fuel saving equipment etc.).

The ES specialist, relevant members of the PDT and the SPO will need to consult together and pool their collective expertise in the various disciplines in order to arrive at the right mitigation measures to be reflected in the PRM. In this manner downstream work by the SPO in prescribing the project requirements for the Procurement Plan (PP) and PDR are facilitated and can be readily reflected in the PIM and the choice of bidding documents and contract provisions.

Environmental and Social Safeguards			
Biodiversity conservation	Risk Rating	Consequence	Guidances for SPOs
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Moderate	Moderate Project requires procurement of natural resources through primary suppliers, and resource extraction is tightly regulated	The technical specifications for the acquisition of natural resources/materials must follow Brazilian legislation on the commercialization and use of the product.
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Guidances for SPOs
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Moderate	Minor Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.	Suppliers must be qualified to participate in tenders and follow national standards on pollution.

<p>2.6 Could the project involve inputs of fertilizers and other modifying agents?</p>	<p>Moderate</p>	<p>Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.</p>	<p>Local acquisitions that may directly or indirectly generate contamination by pollutants must be rigorously analyzed and mitigation measures must be included in the terms of reference. Technical specifications for fertilizer purchases must follow SECAP guidelines.</p>
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Environmental and Social Safeguards			
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Moderate	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Technicians will be hired to provide education to farmers on the use of pesticides and the consequences of contamination and alternative and sustainable means. The terms of reference must be reviewed and contain instructions from SECAP.
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	Moderate	Minor The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated, and is part of international value chains that are subject to regular environmental and social auditing.	Bidding documents and contract conditions to require that bidder have no previous convictions for infringement of labour laws and that Brazilian labour is to be followed. Bid evaluation criteria to include that employment and on-the-job skills training for women by the contractor will be rewarded through technical Merit Points in bid evaluation.
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	Moderate	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Contract conditions should include the respect of Brazil labour law that prohibits child or forced labour.

PPSD Short Form Template

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PPSD Short Form Template

Country:	Brazil
Full project name:	Capacity Development Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty Paulo Freire Project – phase II
Total Financing (\$):	IFAD : 08 million euros AECID Loan: 92 million euros AECID Donation: 4 million euros Government counterpart: 25 million euros. Counterpart Beneficiaries: 10 million euros
Project number:	
Summary of Project Development Objectives	The objective of PPF II is to reduce poverty and food and nutritional insecurity through investments in family farming.

1 PROJECT OVERVIEW

The State of Ceará has around 9.2 million inhabitants. The State's Human Development Index – HDI is considered average, with around 0.682 in 2010, one of the lowest among Brazilian states. The rural HDI, in the same year, had the worst scenario with just 0.575, considered low.

Some advances were identified as an improvement in the State's situation, such as a decrease in the number of individuals living in some degree of poverty between 2008 and 2017, according to IPECE. However, with the COVID pandemic in 2020, there was a worsening in the scenarios relating to health, economy and social aspects of the state. Reduction in public policy values and the growing wave of unemployment contributed to the increase in the state's extreme poverty rate. The rural public is significantly more affected, as restrictions due to the pandemic have resulted in a decrease in circulation and, consequently, in the production and flow of products.

Poverty is a notable factor in the Project area, where almost half of the population lives in this range. The consequences are significant in food insecurity, where only around 18% of the state's population had some type of nutritional security in 2022, according to a PENSAAN study.

Water supply only reaches 15% of rural areas (SEINFRA). The most worrying rate is sanitary sewage, where the rural public has an almost zero percentage in reach, while the urban area is close to 15%. Furthermore, water insecurity is worsened by irregular rainfall in the semi-arid region, mainly associated with climate change that is increasingly plaguing the region.

ATER services are largely responsible for promoting changes in rural production practices. The concern to perform ATER services with women's protagonism, even with low rates due to conservative practices, is responsible for promoting changes in social standards and the active insertion of women in management roles.

The Government of Ceará actively seeks and plans strategies for implementing programs, with the aim of promoting changes in the countryside, such as adopting sustainable practices, increasing resilience and promoting water security in the rural area of the State. The goals are aligned with the objectives of the Project's funding bodies.

1.1 GOALS

The purpose of PPF II is to reduce rural poverty and food and nutritional insecurity in family farming. The Development Objective is to increase the sustainability of production systems and the resilience of family farmers.

Approximately 80,000 family farming families will benefit, of which at least 50% will be represented by women, 15% by young people and 5% by Traditional Peoples and Communities (PCTs). The Project's main target groups are family farmers in situations of poverty and extreme poverty, rural women, rural young people, PCTs and LGBTQIAPN+.

1.2 FINANCING

The project will be financed by 4 financing sources: IFAD with a loan of 8 million euros; AECID with a loan of 92 million euros and a donation for technical assistance of 4 million euros; the Government of the State of Ceará with a counterpart contribution of 25 million euros; and the beneficiaries who will contribute an estimated amount of 10 million euros mainly in kind. The IFAD financing source represents 5.8% of the total value of the project and will finance 9.4% of Component I. The AECID donation will finance 100% of Component III financially in the amount of 2.8 million euros and through the provision of direct services worth the equivalent of 1.2 million euros. The AECID loan will finance 67.7% of Component I, 72.7% of Component II and 55.5% of Component IV, being the most relevant source for financing the project, with 66.2% of the total. AECID funding (loan and grant) will finance 69.1% of the total project.

The Government of Ceará will contribute 16.4% of Component I, 16% of Component II and 44.5% of Component IV. Finally, project beneficiaries will contribute in kind and with their resources to offset the investments with 6.6% of Component I and 11.3% of Component II.

The contribution from the Government of Ceará will be partly financial and partly in the form of logistical expenses, materials, contribution of specialized professionals, use of facilities, offices and technical services.

2 PROJECT COMPONENTS

○ 2.1. COMPONENT 01: RURAL DEVELOPMENT WITH AGROECOLOGICAL-BASED ENVIRONMENTAL SUSTAINABILITY

Its objective is to implement investments with high potential to improve income, through development, diversification, adaptation of productive capacity and access to the market, with actions carried out to promote and encourage the adoption of agroecological practices, favoring conservation and preservation of natural resources.

At a territorial level, it aims to develop and implement Local Rural Development Plans (PDRL), together with producing families, with investments in productive development, recovery and environmental

sustainability, with the support of ATER. There will also be training events for knowledge and access to public policies at the state and federal level, aiming at access to credit and commercialization in institutional markets. In addition to these actions, PPF II will guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR).

At the level of family farming organizations, investments will be made in processing units, including service via Specialized Technical Consultancy (CTE) to ensure improved business management, commercialization and sustainability.

In a transversal way, the topics of gender, youth, PCT, food security and nutrition will be addressed together with families.

Subcomponent 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty

One line of action will be through the elaboration and implementation of PDRLs, with the objective of developing productive and environmental activities, with strong potential to improve/increase production, food security, and, as a consequence, the income level of families and its climate resilience.

PDRL's financial resources are "non-refundable" and include a monetary or non-monetary counterpart from the beneficiaries for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.). non-monetary counterpart will be identified and validated by ATER at the stage of preparing the PDRL, to guarantee the coherence of this counterpart with the object of the PDRL. The PDRL will be prepared for a group of up to 4 surrounding communities, identified and selected based on criteria defined in the MIP and expressing interest and willingness to work together. For the design, an average of 3 communities of 30 families was considered, that is, 90 families per PDRL.

The PDRL will be the instrument signed between PPF II and community associations, and will be designed and implemented with continuous support from ATER Agroecológica, and will have a productive section (PD Productive), focused on income generation activities and improving food security. within the family, and an environmental one (PD Ambiental), whose activities will cover the territory constituted by all the communities organized in the plan.

The PDRL will be prepared by ATER entities and will be evaluated and validated by the PMU, according to criteria of increased income, increased resilience, adherence to local production and management conditions by beneficiaries, and sustainability potential after the end of ATER support.

In synergy with the activities of Component 2, and to enhance the investments made, there will be financing for water access and renewable energy technologies, as well as financing for light mechanization equipment adapted to the context.

Environmental PD : Its objective will be to manage and recover the environment, whether or not associated with the main activities of the Productive PD, collectively at the territorial level.

The content of the Environmental PD will mainly derive from the Environmental and Social Management Plans (PGAS), the preparation of which will occur simultaneously with the elaboration of the diagnosis of each PDLR. The PGAS provides a simplified analysis of Environmental and Social Impact, in order to promote and encourage the adoption of environmental and agroecological practices.

This type of PD will take into account a participatory approach, in which local communities in each rural territory will be in charge of planning. Organized in Local Action Groups, they will develop and implement a development strategy for that territory, taking advantage of their resources and knowledge. locations. Technical Advisory (ATER) for the Development of Agroecological and Sustainable Agriculture: Provision of agroecological-based ATER services for 2 years, to support all activities related to: i) the collective organization of beneficiaries, ii) capacity building, iii) social inclusion (considering the project's priority groups), and iv) all technical support related to the preparation, implementation and accountability of the PDRL (productive and environmental). ATER , in person and remotely, will also

provide support for the processes of acquiring goods and services provided for in the PDRL, as well as for completing these. Topics related to access to public policies as well as commercialization in different opportunities (institutional and private markets) will be other key elements of the support provided by ATER to beneficiaries. Considering the profile of the production units and the local context, the structuring/improvement of municipal agroecological fairs will be an important axis to promote the commercialization of AF products (see annex 18).

These services will essentially be provided by civil society entities, contracted by the PMU, after a selective and competitive process, which will consider, among other aspects, knowledge of the local reality, experience and lessons learned in the first phase of the PPF.

In addition to the face-to-face ATER actions, field work will be complemented with tools based on Information and Communication Technologies (ICTs), defined based on the Pilot Project financed by Component 3. To this end, a partnership will be formalized between PPF II and EMATERCE for a ATER Digital pilot action to be developed in a set of municipalities, defined later. At the end of the pilot, this experience will be evaluated (methodology used, interaction between technicians and farmers, as well as the results) for subsequent replication, providing possible corrective measures and expansion to other municipalities.

Training Farmers to access Public Policies: The subcomponent will carry out training actions through workshops, on the modalities and conditions of access to public policies for family farmers, highlighting those aimed at women, young people and PCT (PRONAF, Agriculture Carbon, Crop Insurance, institutional markets such as PNAE, PAA, PAA Leite, land access policies and programs for young people and the Hora de Plantar Program). These events may include actions in partnership with bodies responsible for issuing personal documents (identity, CPF, Certificates, CAF, etc.). Families not benefiting from other project actions will be prioritized.

Land and Environmental Regularization: To increase security of access to land as a condition for the development of sustainable natural resource management practices, the project, in partnership with the Ceará Agrarian Development Institute (IDACE), will finance environmental regularization actions (considering that there is a partnership between IDACE and the State Secretariat for the Environment – SEMA), and land tenure mainly oriented towards traditional peoples and communities

In the PDRL, both in the Productive and Environmental sections, the innovations developed by the other components of the project that have met the necessary feasibility and relevance criteria will be incorporated.

Subcomponent 1.2. Strengthening the Marketing and Processing of Family Farming Products

It aims to strengthen processing units to add value to family farming products through the implementation of Business Plans (PN), promoting added value to products to provide better marketing. Organized groups, associations and family farming cooperatives will be served, as well as other actors involved in the main chains worked by the Project. The PNs will guarantee investments for adjustments/renovations of physical structures, in addition to the acquisition of machinery for two different types of units: i) medium/large processing units; and ii) Small units. The PNs may also include financing access to renewable energy and internet access.

Although the main focus of the subcomponent is the search for improvement and diversification of income from agricultural production, investments made through the PNs must guarantee the accessibility and supply of healthy and safe food from a sanitary point of view. In this sense, the PN modality for small units can support the structuring of solidarity kitchens (a strategic action by Ceará Sem Fome), which seeks to add value to AF products, prioritizing access for the population in fragile situations.

In both cases, Specialized Technical Consultancy (CTE), contracted by the PMU (companies or civil society entities), will be provided for the preparation and implementation of the PN. These services (training, workshops, technical visits, exchanges, etc.) will be aimed at strengthening management capabilities (financial, administrative and social), improving the production and marketing practices of enterprises. The development of marketing strategies, which include all opportunities accessible in institutional markets (PAA, PNAE, Ceará Sem Fome and Milk Program) and private markets (local markets and minimarkets, municipal fairs, etc.). The content and contracting of CTE services will be defined on a case-by-case basis, depending on the specific needs of each organization.

CTE will also be able to support organizations in specific certification and identification processes for family farming and agroecological production products and will be able to work in partnership with EMATERCE in these aspects, with the aim of valuing agroecological practices.

The activities of this subcomponent will be implemented with the support of the Coordination of Support for Livestock Production Chains and the Coordination of Territorial Development, Cooperativism, Commercialization and Solidarity Economy of the SDA. Considering that the São José IV Project works with the processing units, synergies and complementarity will be sought whenever possible.

Subcomponent 1.3. Gender, Youth, Food and nutritional sovereignty:

This subcomponent will aim to promote the empowerment of women and young people, as well as improving the nutrition of beneficiary families. The activities will work with three of the project's transversal themes, strengthening and supporting the transversalization of themes related to gender, youth and nutrition in all components. Among the women's empowerment activities, gender training is planned, the implementation and monitoring of the agroecological booklet methodology and circle activities for children, which allow greater participation of women. Activities aimed at young people include planning festivals and youth caravans, the Young Communicators program, training young leaders, among others. Nutrition activities focused on exchanges and training, in particular, through the renewal of the partnership with the Social School of Gastronomy. This will allow the transmission, to adults and primary school students, of knowledge about culinary practices and gastronomic culture, and will respond to the ATER needs of families, women, young people and traditional peoples and communities in terms of transformation and promotion of its products, in particular PANC. The set of these practices will be integrated in the preparation and implementation of Local Rural Development Plans (PDRL), thus seeking effective implementation and results on food and nutritional sovereignty. The training will also include modules focused on maternal and child health and reproductive health (see details of activities in Annex x). Based on the PPF I experience, possible partnerships with the Ceará School of Public Health, School of Gastronomy and others will be analyzed.

○ 2.2. COMPONENT 2: ACCESS TO WATER, SANITATION AND SOCIAL TECHNOLOGIES

This component aims to make investments, at family or community level, in the areas of water, household sewage and renewable energy. Whether for community or family use, the investments will guarantee access to water of better regularity and quality for human consumption or agricultural production, in addition to reducing soil and water contamination with waste produced in family units. Practices and technologies for the rational use of water will be systematically introduced with a view to adapting to climate change.

Technical monitoring of families and communities will allow the exchange of knowledge on the maintenance of systems/equipment, in addition to raising awareness to improve good practices in the

use of water for domestic purposes, hygiene and sanitation of the population, as a means of having a greater impact on nutritional and health security of the community.

To contribute to the construction of innovative solutions, the Component will finance the dissemination of sustainable innovations developed within the scope of subcomponent 3.3.

Subcomponent 2.1. Community Rural Basic Sanitation:

The objective of this subcomponent is to plan and implement rural basic sanitation²⁸ at the community level, in favor of improving the environment and the quality of life of a group of families, considering collective solutions for access to water and sanitation and water reuse ashes. In addition to providing adequate disposal and processes that enable the collection and recycling of a portion of the solid waste generated by these communities.

Investments will be made to guarantee access to drinking water in sufficient quantities for human consumption.

Water Supply Systems (WAS): Implementation of new systems or improvements, expansions and rehabilitations of 1200 existing WSS.

Collective SAA must be operated by community associations in conjunction with the multi-community model, Integrated Rural Sanitation System - SISAR, which is already a consolidated model as can be seen in the study in Annex 14. The project will expand the introduction of SISAR in new communities. The economic sustainability of these systems will be guaranteed by SISAR's actions, mainly due to the existing tariff structure. The other actions must be operated and maintained by community associations and cooperatives that benefit from the Project.

reuse of greywater: In a pilot format, a reuse system will be implemented to reduce the disposal of contaminated water into the environment, in addition to the use of "treated" water for productive purposes.

Domestic Waste Recycling: Within communities, actions will be implemented and/or supported with associations and cooperatives, including the development of crafts groups, led mainly by women and young people, for the reuse of waste, including a new source of income for families. As an example, machines for making brooms from PET bottles will be purchased for associations.

Projects must be developed under the guidelines of the SDA and specifically for collective water supply systems, the SAA design and work standards in the rural area of the State of Ceará must be followed. The management of installed infrastructure and implemented actions will be the responsibility of community associations, federations of associations and/or cooperatives.

Subcomponent 2.2. Social technology for access to water and support for production:

The objective of this subcomponent is to implement social technologies at the family level, such as a 1st water cistern (human consumption), 2nd water cistern (agricultural production), reuse system and trench dams (underground dam). In addition to these actions, infrastructure for sanitary solutions will also be implemented with a complete home sanitary module (bathroom with treatment), biodigesters and eco-efficient stoves for energy generation, for example. Social technologies will be implemented by entities contracted by the PMU, with knowledge in these areas and expertise in the territory. In addition to implementation, these entities (NGOs for example) will carry out all training to ensure good use and maintenance of these technologies.

Technologies for capturing and storing rainwater: Both for human consumption and agricultural production, both are well accepted in the semi-arid northeast. They provide a simple and low-cost, yet

²⁸Basic Sanitation consists of offering services related to water, collection and adequate disposal of sewage and residential waste.

very efficient, alternative for storing water for isolated families or in areas of low population density. Cisterns for human consumption guarantee Project beneficiaries the right to quality water, in addition to reducing the impact of severe droughts. Production cisterns allow water to be stored during rainy periods for agricultural production purposes, both for “wetting” small agricultural areas, and also for animal watering. Trench dams (underground dams) are small infrastructures installed in temporary streams, with the aim of damming water from surface runoff and from within the soil.

Sanitary module: The absence of a bathroom in homes is still common. Therefore, PPF II will expand sanitary coverage through the installation of sanitary solutions (bathrooms) with sewage treatment, which will impact the improvement of sanitary conditions in communities, and consequently, the health of families.

Reuse: will increase the resilience of communities to extreme weather events, such as prolonged droughts or periods of below-average rainfall. The system collects, treats and reuses domestic gray water (bath, sink and laundry) that previously went directly into the ground. After the filtering process, this water can be used to strengthen productive backyards, contributing to food and nutritional security, in addition to being a factor in generating income.

Eco-efficient stoves: for preparing food, which reduce the consumption of firewood and the incidence of cardiorespiratory problems in women and children, it is a technology capable of reducing the consumption of firewood for preparing family food, consequently reducing blood pressure on the deforestation of the Caatinga and the emission of greenhouse gases, in addition to ensuring less toxic smoke is emitted in the food preparation environment.

Biodigesters: their main objective is to produce cooking gas. Its use allows a significant reduction in the consumption of firewood from native forests, as well as being a substitute for purchasing gas cylinders, generating savings for families. They will be implemented in family units that have raw materials, such as animal waste and agricultural waste. The use of the biodigester will bring environmental, social and economic gains to the community, including: the preservation of local vegetation; reducing contamination of soil and water bodies; and the use of biofertilizers and fertilization in vegetable gardens and fields, contributing to increased production.

Executive projects must be developed under SDA guidelines and must always be discussed with families before final approval. SDA will be ultimately responsible for projects and works that can be carried out in cooperation with public and/or private partners. Entities will be hired to implement the technologies, train families and support beneficiaries. The management of the installed infrastructure will be the responsibility of the beneficiary families. Families will be sensitized and trained to use the new equipment and, at the end of the training events, they should be confident in managing the infrastructure that will be installed. During the implementation of the Project, families will receive technical support and participate in various training events to be able to incorporate new technologies for access to water and production support into their routine.

Support for Production and Innovation: The project will support investment in micro-enterprises that provide machines, services or products customized for the local context, to assist in the agroecological production of family farmers, thus reinforcing rural entrepreneurship. The project will finance the associated costs of screening, evaluation and technical assistance for projects in all project regions, so that the selected actions are spread across the entire territory. The criteria for selecting activities will prioritize young people and women from the project regions. In addition to these, criteria will be established in relation to scalability, right to repair, economic and environmental sustainability.

Through contracts established and supervised by the PMU, small subsidies and business management support will be offered to support microenterprises that innovate and produce specific tools and equipment for small-scale agroecological systems (e.g. agroforestry mechanization), as well as nurseries, services composting, production of organic fertilizers, pest control, processing machines for

cooperatives and associations, products derived from native/traditional species, installation of renewable energy, etc.

- **2.3 COMPONENT 3. KNOWLEDGE MANAGEMENT AND COOPERATION FOR ADAPTATION TO CLIMATE CHANGE AND COMBAT DESERTIFICATION IN THE SEMI-ARID**

This component will be financed by a donation for technical assistance (100% resources from AECID), and will aim to promote capacity building for family farmers and ATER teams, promote environmental education to ensure food and nutritional security in rural communities, and implement sustainable and inclusive technologies and innovations, adapted to the semi-arid environment. Replicable pilot projects will be developed and exchanges organized, following the Triangular and South-South Cooperation (CTSS) model. It also aims to provide support to the PMU to strengthen the State's institutional capacity to execute PPF II and, especially, the actions financed by Component 3.

Subcomponent 3.1. Capacity development of family farmers and rural extension teams (Technical Assistance, AT):

This subcomponent aims to promote capacity development in areas related to climate-resilient agriculture, covering topics such as desertification, nutrition, biodiversity and food security. It seeks to provide a comprehensive perspective on these issues and, consequently, influence possible public policies.

It aims to implement actions to improve and update the knowledge and capabilities of beneficiaries and teams of professionals working on the project, especially within the scope of component 1. It will work with ATER agents hired in Component 1, EMATERCE and other project audiences. In this sense, it will also seek to value the knowledge of small producers, especially PCTs, to act as multipliers and local strengthening agents.

To this end, courses, training and qualifications will be established that will include face-to-face activities and virtual content - which will take place throughout the Project's implementation. In addition, technical assistance will be provided to producers and the exchange of experiences and good practices will be facilitated. Special attention will be paid to the participation and empowerment of rural women. Specifically, the following actions will be carried out: 1) Course for farmers offered by AT; 2) Training courses to technically strengthen ATER and CTE teams; and 3) Experience exchange activities between farmers in the state.

Subcomponent 3.2. Promoting environmental and climate education with a gender focus in rural schools

This subcomponent focuses on promoting gender-sensitive environmental and climate education in rural schools. To this end, training will be carried out for students, teachers and lunch ladies in areas related to climate-resilient agriculture, sustainable management of natural resources such as water and biodiversity, as well as the production of seedlings, conservation of native seeds, reforestation and food and nutritional security.

A network of partners will be mobilized to contribute with lectures and specific courses on topics of interest to the project - including members of the PPF II team itself, contracted ATER entities, mobilization of experts from Embrapa, universities, Sebrae or other organizations.

It will specifically seek to support the strengthening of knowledge and extension practices of high school students in Family Alternation Training Centers (CEFFAs) and similar institutions. CEFFAs play a strategic

role in sustainable territorial development, with youth as the protagonist. The subcomponent will serve students and teachers from these institutions with a view to strengthening their role as multipliers of knowledge and good agroecological practices, as well as productive inclusion and income generation for rural youth, contributing to their permanence and succession in the countryside.

Currently, there are 5 EFAs in the State of Ceará, 3 of which are in the project area, in the municipalities of Independência, Quixeramobim and Ipueiras. These schools will be able to strengthen their pedagogical program for the technical-productive training of young people with these actions.

Subcomponent 3.3. Promotion of technological research and implementation of pilot projects

It aims to promote technological research and implement pilot projects that are economically accessible and viable, with the potential to become rural businesses. These projects will seek to use renewable energy, reduce the use of firewood and biomass, as well as improve the quality of water for human consumption, among other actions.

In this context, reference centers will be established that will serve as places for research, dissemination and scalability of knowledge, in collaboration with universities and research centers to develop pilot projects. The methodology of these interventions will be based on close collaboration with family farming organizations throughout the process, from identification to implementation of the initiatives. This will be done with the aim of achieving social integration and appropriation of solutions by beneficiaries. The collection and analysis of lessons learned and good practices obtained in pilot projects will allow their subsequent transfer through triangular and South-South cooperation to other countries, with priority for Portuguese-speaking countries such as Angola and Mozambique, in the Sahel region and dry regions of Latin America and the Caribbean (LAC) such as the Grand Chaco and the Dry Corridor.

Subcomponent 3.4 Knowledge Management and South-South and Triangular Cooperation (CSST)

This subcomponent will focus on the systematization, documentation and dissemination of knowledge, experiences, innovations, technologies and good practices developed and tested, with the aim of making them accessible. In addition, studies and research will be carried out related to the project's priority areas with the aim of mobilizing new knowledge and good practices and expanding the network of partners. Analyses are also planned on women's participation in family food production and security, and on actions aimed at the inclusion of PCT.

The innovations and good practices promoted by the project will be disseminated and shared through CSST actions with other semi-arid areas in Africa and LAC. Exchange activities will also be carried out with selected countries in Africa, with special attention to the Sahel region and Portuguese-speaking countries.

The project will have the support of the IFAD South-South Knowledge and Cooperation Center for the Latin America and Caribbean Region, located in Brasília and the AECID Training Center, located in Montevideo, Uruguay, in organizing exchanges with countries of fun regions to meet specific demands related to the project's priority areas and socialize the learning and social technologies promoted by the Project. CSST activities will be coordinated with ABC and will take into account the institutional agreements previously signed between ABC, IFAD and AECID.

The knowledge generated by the project and the CSST actions will play a key role in promoting political dialogue and in the development of public and private actions aimed at sustainable rural development.

Subcomponent 3.5. Strengthening the PMU for implementing and monitoring activities

Strengthening the capacity of the PPF II PMU with the aim of improving the implementation and monitoring of activities financed by Spanish Cooperation. The expected functions include: i) Assistance to the PMU in the conception and planning of activities, as well as in the preparation of the acquisition plan; ii) Support to the PMU in monitoring and monitoring project activities and, especially, components

related to knowledge management and CSST. iii) Technical assistance to the SDA in the design of innovation policies and programs in the agricultural sector based on the Spanish experience; iv) Support for the transfer of knowledge and good practices from Spain in the field of sustainable agriculture and water management to the State of Ceará; and v) Coordination with the Spanish Cooperation Office for Brazil, based in Montevideo, Uruguay, of the triangular cooperation actions carried out within the scope of the project.

3 OVERVIEW OF THE COUNTRY, BORROWER AND MARKET – OPERATIONAL CONTEXT

3.1 GOVERNANCE ASPECTS

The Secretariat of Agrarian Development – SDA is the executing agency that will contain the PMU – Project Management Unit.

The PMU/SDA will be responsible for implementing the planned actions, in addition to carrying out technical coordination, management of socio-environmental safeguards, acquisition management, financial management, audits and M&A. The presence of the project in the field will be guaranteed through a technical team allocated in up to 5 (five) EMATERCE regional offices. For this support from EMATERCE, a Technical and Financial Cooperation Agreement will be established.

The Government of the State of Ceará is currently managed by Elmano de Freitas, elected in 2022. Currently, he is reaching the halfway point, with management until the end of 2026.

3.2 ECONOMIC ASPECTS

Promoting investment to the rural public is highly relevant as it allows changes in the lifestyle of rural communities. Actions to promote the production of sustainable practices will support increased resilience in the countryside, agroecology, awareness of gender, youth, traditional peoples and communities, promoting significant changes in the quality of life of beneficiaries.

Investment in the acquisition of goods/provision of services to strengthen the activities carried out, promotion of production and commercialization, access to technology by obtaining computer equipment.

3.3 TECHNOLOGICAL ASPECTS

The Project will use some direct and indirect support systems for acquisitions, including:

- SIAFE-CE Financial and budgetary execution system of the State of Ceará
- ICP-CMT of IFAD for registration and monitoring of contracts (Customer Portal).
- OPEN – IFAD Procurement System.
- E-Partnerships – System of Agreements and Accountability for Agreements in the state of Ceará, of the State Comptroller General (CGE).

4 CUSTOMER CAPACITY AND PMU

The Government of the State of Ceará is aligned with the policies of IFAD and AECID in the search and adoption of public policies and strategic planning for the execution of actions aimed at changing the experience in the countryside, especially with the study and adoption of sustainable practices,

agroecology, political gender, youth insertion and protagonism, food and water security aimed at the rural public.

The Secretariat of Agrarian Development is a driving force in the implementation of public policies aimed at the rural public, especially those in poverty in rural areas. Acting as a consistent, increasingly effective implementer, SDA's operational capacity stands out due to the breadth of actions and the choice of managers who are committed and qualified to achieve the goals.

In phase 1 of the project, the Management Unit demonstrated purchasing capacity, carrying out bidding procedures in accordance with the IFAD Procurement Guidelines, and complying with procurement plans, including bids carried out by beneficiaries. In this theme, phase 1 of the project carried out various training and support materials for the bidding committees of Rural Farmers Associations and provided continuous monitoring for these beneficiaries.

Furthermore, the Government of the State of Ceará has a Special Tenders Committee that is experienced and prepared to execute projects financed by external resources. The Commission is made up of employees from the State Attorney General's Office, and they work with equality and transparency and in partnership with the project bidding team.

The project's bidding team has already undergone IFAD BUIDPROC certification and various training sessions given during phase 1 support missions. They were also trained in the use of IFAD systems (OPEN and CMT).

○ **4.1 EXPERIENCE**

The capacity to implement and execute final actions aimed at the rural public in poverty by the executing agency is highlighted. The implementation of projects and programs with similar and complementary characteristics allows for a robust and secure arrangement for new goals.

The SDA was the executing agency in the Paulo Freire I Project, with support from IFAD in implementation, and funding from AECID. Still executing agreements with international cooperation agencies, the executing agency still houses the São José Project, now in phase 04, with prominent management and innovation experiences. The positive evaluation of the implementation of the first phase was a relevant aspect for new execution arrangements, now in the second phase. The gradual maturation, added to the fruitful experiences, results in an optimistic scenario for the Paulo Freire II Project.

Phase 1 brings many lessons learned that strengthen the performance of Project activities. For example, rural technical assistance entities were selected using the SBQC method, which led to delays in starting implementation. Today these services are adapted in the correct modality, and this will provide greater agility.

In phase 1 the team was still undergoing various training. Today the team is capable of implementing IFAD's methods and complying with its policies.

In phase 1, CEL 04 was trained by IFAD, even though it already had the capacity to carry out procedures in accordance with IFAD regulations. This reinforced the implementation of even more efficient bidding procedures.

IICA worked in phase 1 by hiring key staff to advise the Management Unit and complied with IFAD Policy in carrying out the procedures and IFAD recommendations made in supervision missions.

The Management Unit was also trained in the preparation of Terms of Reference and how to evaluate CVs and proposals.

The field technicians from the regional offices were hired by the Instituto Agropolos do Ceará, which, in order to satisfactorily comply with the IFAD Policy and the Procurement Regulations, underwent training carried out in support missions and served the project satisfactorily with this workforce.

The Rural Technical Assistance entities also performed a good job due to their contracts being adequately monitored and monitored by the Management Unit. IFAD reviewed the guidance materials on how to carry out the Shopping method, how to monitor the deliveries of goods and carry out financial statements. It also provided training on field bidding for all entities, providing guidance on how to proceed with farmers' bidding committees and local business situations. The project expanded the number of Production Plans beyond the target and managed to complete and meet the expected results.

The new phase of the project has a prepared and experienced team, with execution capacity brought by phase 1 of the PPF and also from the execution of the São José Project, financed by the World Bank.

○ **4.2 INSTITUTIONAL ARRANGEMENT**

The general coordination of the project will be responsible for management with the support of technical coordination. The management of components 01 and 02 will be responsible for the final areas, and the management of component 03 will be responsible for the programmatic areas, which include Monitoring and Evaluation, Procurement and Finance. Each thematic area, whether final or programmatic, will have specialists to assist managers in monitoring, decision-making and specific procedures. The procurement team will be selected with resources from component 3, but will act transversally, supporting bids for all components, guiding the preparation of the Terms of Reference with cost estimates, in addition to supporting the Evaluation Committees of the competitions in each necessary step.

Field technicians will be directly linked to the PMU, and will work together with actors from other coordinations to exchange synergies. The teams will have administrative and financial support to promote greater efficiency in carrying out activities.

The PMU/SDA, located in Fortaleza/CE, will be a central point for the Project's actions. The Project Offices – ERP's will serve as a support point for the Project in the territories.

The interventions proposed by the Project will be developed jointly, especially in alignment with federal programs, such as the National Program for Technical Assistance and Rural Extension in Family Agriculture and Agrarian Reform (PRONATER), the National Program for Strengthening Family Agriculture (PRONAF), the Food Acquisition Program (PAA), the National School Food Program (PNAE), the Cisterna Program and the National Policy for the Sustainable Development of Traditional Peoples and Communities and the National Plan for the Promotion of LGBTQIA+ Sexual Diversity. There is an expectation of convergence with the National Plan for Agroecology and Organic Production (PLANAPO), still in the construction phase.

At the state level, the Project will establish strategic partnerships with the Water Resources Management Company (COGERH), the Institute of Economic Research of the State of Ceará (IPECE) and with the SDA's final thematic coordinators, such as the State Technical Assistance Company and Rural Extension (EMATERCE) and the Ceará Agrarian Development Institute (IDACE), and with the São José IV Project (financed by the World Bank and implemented by SDA), as well as in programmatic coordination, such as the Tenders Center with a role of monitoring and finalizing bids in corporate systems; the Financial Center, with concentration of payment orders after preparation and subsidies for the Project; Legal Advice as support in actions involving a large number of processes/procedures; the Accountability Center, especially with monitoring and monitoring of PDRL - Local Rural Development Plans, in the

government's corporate system, e-partnerships . The internal level of organization offers dynamism and complement to PMU employees, being fundamental in the implementation of the Project.

Strategic partners active in the previous phase of the Project (PPF1) will also be actors in PPF2, such as the National Institute of the Semi-Arid (INSA) of the Ministry of Science, Technology and Innovation (MCTI), the decentralized units of the Brazilian Agricultural Research Corporation (EMBRAPA) from the Ministry of Agriculture and Livestock (MAPA), in addition to the wide network of civil society organizations, educational institutes, universities and research organizations.

5 PROJECT ACQUISITIONS

The management of PPF2 procurement and contracts will be oriented towards the efficient use of resources. The activities of purchasing goods and contracting works and services of any nature will aim to meet, in terms of time, cost and quality, the needs of the Project to meet the determined goals and IFAD's SECAP requirements. Procurements and contractual monitoring will use IFAD systems: OPEN and CMT.

The procurement team will ensure that procurement and contracting procedures are carried out diligently, efficiently and in accordance with the principles governing the management of Project procurement and contracts, in accordance with IFAD regulation and guidance.

The management unit will have a procurement coordinator, a specialist and will select a consultant to advise on the activities. In addition to the Management Unit, there is the CEL 04 team, made up of 8 members. Rural technical assistance contracts will provide for at least one procurement professional per region to be served, and this number may be higher depending on the region and number of farmer associations to be served efficiently.

The Management Unit will ensure that hired employees and consultants, including those from the Regional Project Offices and teams from the Technical Assistance entities that will serve the beneficiaries, offer support in the contracting activities of the Project's beneficiaries.

Eligible expenses are those provided for in the original AWPB and PP and their successive modifications authorized by IFAD (No-Objection), and which were established in accordance with the procedures described in the ~~Loan~~ Financial Agreement and the Project Implementation Manual.

Need for practical support for procurement:

IFAD will provide training and capacity building, as necessary, for new members of the Project Implementation Unit, on the topic of procurement management, particularly in the use of the OPEN system, IFAD's current procurement system. It will also train the team to use the CMT system, monitoring and contractual monitoring. It will be available to support the project in training project technicians who will support bidding in general and beneficiaries.

○ 5.1 ACQUISITION ARRANGEMENT

PPF2 acquisition and contracting activities will be coordinated by the PMU. They will be carried out by CEL 04, which is the Special Tenders Commission of the State of Ceará, subordinate to the State Attorney General's Office – PGE. CEL 04 is a specific organizational structure experienced in carrying out bids in

accordance with the acquisition and contracting standards of Development Banks (international system), exemplifying the rules of IFAD, IDB, IBRD, etc. The role of CEL 04 will be essential in conducting the Project's bids. CEL 04 hires Consulting Firms, purchases goods and specialized technical services, such as the selection of third sector entities that provide rural technical assistance services.

For the selection of individual consultants to advise on the activities of the PMU, the SDA will use IICA, the Inter-American Institute for Cooperation on Agriculture, which worked in the previous phase of the PPF. This cooperation will be established through an Memorandum of Agreement between the SDA and IICA.

IICA has already supported most of IFAD's projects in Brazil, with headquarters in Brasília-DF and allocation of representatives in Brazilian states. It is an entity that has already undergone IFAD assessment and training on IFAD regulations and policies.

Today, IICA has a contractual modality for implementing projects, not characterized as the old "international technical cooperation", which was hampered by rules and the impossibility of holding tenders for the acquisition of goods and services, as it was intended exclusively for contracting of consultants who could cooperate with Brazilian activities.

The new modality has already been established, including for World Bank projects and, starting this year, it will be for IFAD, so that IICA can continue the Project Implementation Manual without any obstacles. In the previous modality, the Agreement process was established under decree 5151 and the new modality will follow the decree.

To provide field technicians to work in regional offices and support activities carried out directly with project beneficiaries (farmer associations and cooperatives), including *on-site monitoring* of the provision of rural technical assistance services, the Management Unit will provide a selection third sector entity that specializes in the subject and has experience in providing services. To support the tenders that will be carried out by rural farmers' associations, the project will involve rural technical assistance entities, with trained technical personnel. Together with the Management Unit, they will provide training for farmers' bidding committees and monitor the processes until the accountability phase.

The PMU will act as the focal point for procurement and contracting activities that occur within the scope of PPF2, being responsible for strategic planning of actions and facilitating the flow of information, from planning to registration and monitoring of contracts in monitoring systems.

The procurement activities of PPF II will follow IFAD procurement guidelines. An exception may be done for the notice for the selection of rural technical assistance entities (ATER), in which the national request for proposal document (Public Call) may be used, which has already been adapted to comply with IFAD's Anti-Corruption and Anti-Harassment Standards. Policy, in addition to containing as an appendix the eligibility self-certification form. This tender will use Rural Technical Assistance entities with CET certification – Certification of Entities and Technicians, available on the Federal Government's Single Portal (Gov.br _ MAPA- Ministério da Agricultura e Pecuária), and with a minimum experience of two years.

The public call is specifically intended to establish partnerships with non-profit Civil Society Organizations (CSOs).

An exception may be attributed to the notice for the selection of rural technical assistance entities (ATER), from MAPA - Ministry of Agriculture and Livestock, in which the national competition may be used, which has already been adapted in terms of compliance with the Anti-Corruption and Anti-Harassment Policy of IFAD, in addition to containing the eligibility self-certification form as an attachment. This tender will use Rural Technical Assistance entities with CET certification – Certification

of Entities and Technicians, available on the Federal Government's Single Portal (Gov.br), and with a minimum experience of two years.

CET is the certification of partner entities and their respective technicians, which form the accredited network responsible for the operationalization of TERRA BRASIL - National Land Credit Program - PNCF, in the states and the Federal District. After certification, technicians linked to the entities will be able to carry out activities, such as: checking the social aptitude of rural workers and farmers applying for Terra Brasil; use of computerized land credit systems; preparation of financing projects and implementation proposals for production units; training for beneficiaries; provision of advisory and technical assistance and rural extension services (ATER); complying with the standards and guidelines defined by the Ministry of Agriculture, Livestock and Supply.

Regarding the planning of procurement and contracting, the Project will be particularly attentive to the following provisions :

- None project activity can be contracted if it is not in the approved Project Procurement Plan and with IFAD “No Objection”. Otherwise, IFAD will not finance the activity.
- Any inconsistencies related to the procedures and methods established in the Procurement Plan will result in IFAD objection to the request to carry out the activity;
- The deadlines and conditions for the award and signing of contracts are established in accordance with the phases foreseen for each bidding method, defined in the PP PAC.
- When preparing the Terms of Reference or technical specifications document, the technician from the final area (project component) will be responsible for the preparation and targeted specifications of his characteristic area, and must guide the Procurement Team to define the criteria for evaluating the offers. and qualification of bidders. In addition, he must participate, as a member or technical consultant, in the Evaluation Committee responsible for judging and evaluating the proposals received in the bidding procedure linked to the demand he made, when applicable.

Procurement by Project beneficiaries (farmer associations and farmer cooperatives):

The beneficiaries' ~~bids~~ procurement activities will be defined legal instruments called “Agreements”. Beneficiaries will only use the Request for Quote method and will be accountable for the use of resources from their respective agreements. The procurement limit for this method is USD 100,000.00.

The Project will also have community procurements within its scope, through the implementation of PDRL - Local Rural Development Plans. Acquisition and contracting processes and procedures will be carried out using simplified methods, always in line with IFAD guidelines and policies and mandatory complementary documents, such as self-certification forms in the bidding and contract stages.

In community acquisitions, the project will have the support of the State Controller General – CGE and ATER entities that will provide guidance, maintenance and operationalization of the “e-partnerships” system, reinforcing the training of beneficiaries responsible for conducting, celebrating, guarding and conservation of bidding and contract documents, as well as feeding into the government system.

“e-partnerships” was developed within the scope of the Preventive Internal Control of the Government of the State of Ceará to offer support to bodies and entities of the Executive Branch in the execution of their partnerships involving transfers of financial resources through agreements and similar agreements, under supervision of the General Comptroller and Ombudsman of the State of Ceará (CGE), e-parcerias replaced SISCONV-CE.

○ **5.1.1 STRUCTURE OF PROJECT COLLABORATORS**

Coordination	General Project Coordination
	Project Technical Coordination
Management	Component 01 - 1 Staff
	Component 02 - 1 Staff
	Component 03 - 1 Staff
	Financial - 1 Staff
	Procurement 2 Staff
	Monitoring and Evaluation - 1 Staff
Experts	Component 01 - 1 Expert
	Component 02 - 1 Expert
	Component 03 - 1 Expert
	Financial - 1 Expert
	Procurement - 1 Expert
	Monitoring and Evaluation - 1 Expert
	Gender - 1 Expert
	Youth - 1 Expert
	Nutrition - 1 Expert
	Knowledge Management, communication and CSST - 1 Expert
	Safeguards - 1 Expert
	Administrative management - 1 Expert
Field Technicians	EMATERCE offices
Administrative and Financial Support	PMU

6 MARKET ANALYSIS

Supplier Trends:

Part of the bids is related to common services, renovations of the PMU and some EMATERCE offices that will support regional activities, acquisition of equipment and logistics services for holding events (workshops, seminars and training). Another part will be carried out by field technicians and rural technical assistance entities, such as the preparation and implementation of Local Rural Development Plans, Business Plans, support for Land Regularization and Rural Environmental Registry, in addition to consultancy for business management and commercialization.

The goods to be procured ~~market part does not imply items that have restricted offers and~~ are easily found on the market, such as equipment, office supplies, agricultural items. The proposed services are carried out by third sector entities. The state of Ceará has numerous entities that deal with rural issues and many of these entities have already worked with PPF1. The risk of unsuccessful ~~deserted or empty~~ bids is low as long as procurement opportunities are widely publicized in the various media available.

○ **6. 1. MAIN PROCUREMENT BY COMPONENT**

In a summary table, the main procurements and hirings of each component:

Component	Scheduled Activities
C1: Rural development with agroecological-based environmental sustainability	<ul style="list-style-type: none"> - Develop and implement Local Rural Development Plans (PDRL) with support from ATER; - Guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR); - Hiring Specialized Technical Consultancy (CTE) to ensure the improvement of business management, commercialization and sustainability in the Processing Units; - Preparation of Environmental and Social Management Plans (PGAS); - Holding municipal agroecological fairs; - Training workshops with themes of women, young people, PCT, as well as strengthening management capacity for production and commercialization; - Hiring of Specialized Technical Consultancy (CTE), hired by the PMU (companies or civil society entities), for the preparation and implementation of Business Plans, as well as certification and identification of family farming products;

** ATER activities will also be used in component 02 in water security activities.

Component	Scheduled Activities
C2: Access to Water, Sanitation and Social Technologies	<ul style="list-style-type: none"> - Investments to guarantee access to water through Water Supply Systems; - Implementation of pilot systems for community reuse of greywater; - Implementation or support of actions for the disposal of domestic waste; - Implementation of social technologies at family level and training for use. ** some techniques are still in the approval phase at federal level. Use of public notice for competitive process between entities; - Contracts signed to offer subsidies and business management support for innovation microenterprises in agroecological systems

** Component 02 will finance the dissemination of sustainable innovations from component 03

Component	Scheduled Activities
C3: Knowledge Management and Cooperation for Adaptation to Climate Change and Combating Desertification in the Semiarid Region	<ul style="list-style-type: none"> - Hiring ATER entities; - Strengthening the State's institutional capacity; - Training, exchanges and training with in-person and remote activities to exchange experiences and good practices; - ATER teams will hold courses for farmers; - Partnerships with research and innovation centers, as well as civil society organizations to implement and develop social and technological innovations according to the target audience; - Gradual construction of Knowledge Management products, according to the implementation of the Project, for gradual updating and memory of the Project. - Training for students and faculty to adopt resilient and sustainable practices; - Promotion of technological research to implement pilot projects; - Systematization products, documentation and propagation of knowledge, experiences, innovations, technologies and good practices, with exchanges for exchange; - Information and Communication technology tools (ICTs): pilot project to be developed for ATER DIGITAL, with support from EMATERCE

To reduce the initial delay in execution, the Management Unit, through its Purchasing Coordination, will organize the technical teams and request the preparation of Terms of Reference and cost estimates for strategic contracts.

The Management Unit will initially need to streamline the Agreement with IICA. At the same time, it will be necessary to prepare the Terms and Reference of the consultants who will advise the activities at the PMU and which will be presented to IICA when the agreement is signed.

The Terms of Reference for the selection of rural technical assistance entities must be prepared as soon as possible and submitted to CEL 04 to begin the bidding procedure.

The Purchasing Coordination must request the assembly of Evaluation Committees for each selection. The members of these committees should preferably be the same ones who prepared the Terms of Reference.

It will be the responsibility of the Acquisitions Coordination to convene these Evaluation Committees at the necessary stages and monitor the preparation of evaluation reports.

The Procurement Coordination will be responsible for sending the documents to FIDA for No-Objection analysis.

7 COMPLAINTS MANAGEMENT AND DISPUTE RESOLUTION SYSTEMS

The Project Operational Manual will indicate the means of communication available for complaints from beneficiaries or people who feel negatively affected by the project or people in the project. However, the bidding notices will indicate a deadline for complaints and handling of grievances related to the competitions.

In addition, bidders must have access to the Eligibility Self-Certification Form as an appendix to the Notice, which implies that the bidder cannot have committed Fraud, Corruption or Sexual Harassment/Exploitation. The Form will be signed by the awarded tenderer, at the time of signing the contract. This is in line with the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), as well as national legislation and regulations related to the topic.

8 PROCUREMENT RISK ANALYSIS

Risk description	Mitigation Description	Risk owner
Regarding the regulatory and legal framework	<p>MODERATE</p> <p>The execution will be with resources centralized in the Project Management Unit itself, which will be responsible for respecting the rules that regulate the relationship between government and civil society, ethics and public governance, as well as bidding for Project activities in accordance with the regulations of the FIDA, complying with the Procurement, Anti-Corruption and Anti-Harassment Policy.</p> <p>For larger Acquisitions, common technical services and legal entity consultancy services, the project will</p>	SDA/PMU

	<p>execute the tenders through CEL 04, Special Tender Commission of the State Attorney General, which has extensive experience with IFAD and other Development Bank regulations. .</p> <p>To implement the hiring of personnel, the Project will rely on IICA and a third sector entity that will be selected based on their experience in the topic. However, IICA has extensive experience in carrying out this type of selection in IFAD projects. And the third sector entity must comply with the IFAD rule for selecting individual consultants. The risk of non-compliance with IFAD Policy may occur, but it is necessary to consider that IFAD will analyze these selection processes in advance.</p> <p>Bids will also take place within the scope of Agreements that will be signed with Farmers' Associations and Cooperatives. They will use the Request for Quotation method and will have technical support and monitoring of the Project to carry out the planned activities, including training workshops.</p> <p>And as a mitigation measure, training should be carried out with both entities on the selection of individual consultancy and compliance with IFAD Regulations and its Anti-Corruption and Anti-Harassment /Sexual Exploitation Policy.</p>	
<p>Responsibility and transparency</p>	<p>MODERATE</p> <p>Legal Entity Hiring: PGE/CEL 04 uses a system to register bids and all respective documents and the State Court of Auditors has access to verify and carry out audits, which promotes a high degree of responsibility and transparency.</p> <p>IICA has a bidding system already analyzed by IFAD, with registration of all documents and bidding phases. Sometimes, only the IICA liaison has access to the system.</p> <p>The third sector entity that will support the selection of field technicians must have, as a condition of participation in the competition, a bidding and contract system made available to the PMU and control bodies. However, this entity has not yet been selected and IFAD will still</p>	<p>SDA/PMU</p>

	<p>carry out a technical capacity analysis. This is the partner that indicates potential risk, however, this contract will be monitored and the processes will be reviewed by IFAD.</p> <p>Field bids are made using the simplest method and will be registered in the State Comptroller General's E-Partnerships system, which ensures transparency and responsibility. The system is safe and provides transparency, but there are 74 municipalities in the semi-arid region of the state of Ceará, which is equivalent to approximately 62,000 families that will be served, brought together in family farming associations and many project sponsors working together. The government team already has field experience and satisfactorily executed phase 1 of the project.</p>	
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9 PURPOSE OF ACQUISITIONS

Template for selection of the optimal (recommended) procurement approach for os the project's procurement contracts.

Template for selection of the optimal (recommended) procurement approach for os the project's procurement contracts.

Renovation of the Project Management Unit office AWPB/Component Ref.: 4.1.3 EUR \$: 800.000,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A - Traditional based on Employer s/IA design. Government is preparing the reform project.
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts	A - Payment after delivery of services.

	C. Schedule of rates Admeasurements D. Time and Materials E. Cost plus	A cost of 800,000 euros was estimated for the renovation of the Management Unit.
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible variations in the function of price readjustment through the application of the price escalation formula, as provided for works.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	D. A - Requested for Bids (RFB). One envelope

Renovation of EMATERCE UGP offices (5 offices) AWPB/Component Ref.: 4.1.4 EUR \$: 200.000,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A - Traditional based on Employer s/IA design. Government is preparing the reform project.
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts	A - Payment after delivery of services.

	C. Schedule of rates Admeasurements D. Time and Materials E. Cost plus	A cost of 200,000 euros was estimated for the renovation of the Management Unit.
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible variations in the function of price readjustment through the application of the price escalation formula, as provided for works.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	A - Requested for Bids (RFB). One envelope

Implementation Service for Community Rural Water Access AWPB/Component Ref.: 2.1.1 EUR \$: 160.000,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A- Traditional based on Employer s/IA design. Standardized water cisterns
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts	A - Payment after delivery of services.

	C. Schedule of rates Admeasurements D. Time and Materials E. Cost plus	
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible price adjustments provided for in the legislation.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	A - Requested for Bids (RFB). Notice in lots by region. An envelope

Construction of cisterns for human consumption AWPB/Component Ref.: 2.2.1 EUR \$: 1.500.086,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A- Traditional based on Employer s/IA design. Standardized water cisterns
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts C. Schedule of rates Admeasurements D. Time and Materials E. Cost plus	A - Payment after delivery of services.

Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible price adjustments provided for in the legislation.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	A - Requested for Bids (RFB). Notice in lots by region. An envelope

Construction of cisterns for agricultural production AWPB/Component Ref.: 2.2.2 EUR \$: 1.931.250,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A- Traditional based on Employer s/IA design. Standardized water cisterns
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts C. Schadule of rates Admeasurements D. Time and Materiais E. Cost plus	A - Payment after delivery of services.
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic

		corrections will be made if necessary. The contract will therefore consider possible price adjustments provided for in the legislation.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	A - Requested for Bids (RFB). Notice in lots by region. An envelope

Services for reusing family water for production /c AWPB/Component Ref.: 2.2.3 EUR \$: 256.000,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A - Traditional based on Employer s/IA design. Provision of standard water reuse services.
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts C. Schadule of rates Admeasurements D. Time and Materiais E. Cost plus	A - Payment after delivery of services.
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible

		price adjustments provided for in the legislation.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	A - Requested for Bids (RFB). Notice in lots by region. An envelope.

Complete home sanitary module implementation services AWPB/Component Ref.: 2.2.4 EUR \$: 107.000,00		
Attribute	Selected Approach	Justification
Specifications (SECAP standards)	Conformance/Performance	Conformance
Additional Sustainability Requetiments	Yes/No	No
Contract Type	A. Traditional based on Employer s/IA design B. Design and Build (design by contractor) C. Design, Build, Operate, Maintain	A. Traditional based on Employer s/IA design. Standardized sanitary module
Pricing and Costing Mechanism	A. Lump-Sum B. Performance based contracts C. Schedule of rates D. Admeasurements E. Time and Materiais E. Cost plus	A - Payment after delivery of services.
Supplier Relationship	Adversarial/Collaborative	Collaborative
Price Adjustments	A. None, Fixed Price B. Negotiated or MoA C. Percentage	A - The contract is established at the price offered, and arithmetic corrections will be made if necessary. The contract will therefore consider possible price adjustments provided for in the legislation.
Form of Contract (Terms and Conditions)	State any special conditions of contract	The Contract will follow the IFAD Purchasing Regulations

		and the selection process will take place through CEL 04 - Special Tender Commission of the State of Ceará.
Selection Method for Goods and Works	A. Requested for Bids (RFB). B. Requested for Quotations (RFQ) C. Direct Selection	B Requested for Quotations (RFQ)

10 PURPOSE OF ACQUISITIONS

- Promote the reduction of poverty and food and nutritional insecurity through investments in family farming.
- Carry out contracts respecting the principles of competition, “Value for Money”, equality, transparency, economy, efficiency, effectiveness and objective judgment, and for the latter, will develop objective and qualitative evaluation criteria, in order to select the best proposals for the execution of services that promote the development of planned activities.
- Ensure the fight against fraud and corruption, the fight against harassment and sexual exploitation, encouraging better conduct.
- Promote the fulfillment of planned activities and established goals.
- Achieve the development objectives proposed for the Project.
- Empower the capacity of farmers benefiting from the project, by carrying out activities with international organizations and improving the quality of life in the countryside.

11 RECOMMENDED PROCUREMENT APPROACH FOR THE PROJECT

- All planned PMU tenders will follow the IFAD Purchasing Regulations and will be carried out in part by IICA – Inter-American Institute for Cooperation on Agriculture, in part by PGE's CEL 04, and by a third party yet to be selected competitively.
- Beneficiaries will carry out procurement through their farmer associations or cooperatives. The procurement activities will be foreseen in their Business Plans/Production Projects. Procurement committees of farmer associations will need to be trained in the steps of the request for quotation method. A detailed manual on the quote request method will be made available to Rural Producers Associations.
- Individual consultancies (individuals) for the PMU or the field will follow IFAD regulations and the specific recommendations of the procurement specialist assigned to the Project. There is no standard contract for this method, but the model used must contain IFAD's anti-corruption and anti-harassment clauses. For contracts generated via the system, where it is not possible to insert these clauses, they must be included in the Terms of Reference, which must be an integral part of the contract as an Appendix.
- Proposals with notices must contain, in the contractual part, the Eligibility Self-Certification Form, to be completed and signed by the winning bidder. This certificate must be an integral part of the contract as an Appendix.

- The Management Unit, through Procurement Coordination, must organize and synchronize the preparation of the Terms of Reference and Technical Specifications and respective cost estimates and budgets, in order to promote agility and efficiency in the competitions, especially those indicated as strategic.
- The tenders and contracts team from the previous phase of the PPF has already completed training on the IFAD Procurement Regulations, the OPEN procurement system and the contract management system, the CMT. Training should be carried out for new members of the PMU. It is extremely important to prioritize the participants of professionals who will work in tenders, avoiding providing training to people whose role has no correlation with the topic.
- It is important that the consultants who supported the PMU and worked in the previous phase of the PPF, and who were selected in accordance with the IFAD rule, can be subjected to no objection analysis for direct hiring, in order to accelerate the initial execution, especially professionals who ~~They~~ were part of the Procurement, financial and monitoring and evaluation teams.
- Procurement must comply with the IFAD Procurement Principles, including and *Value for Money*.
- Bids will be supervised annually by IFAD, to ensure impartiality and administrative probity. Implementation support missions may occur, with specific training on tender management.
- According to the Procurement Coordination, there is a clearly identified target market for most Procurement. However, the recommendation to maximize the dissemination of competitions is reinforced, ensuring compliance with the principle of publicity. These publications must be provided by the Procurement Coordination.
- The Procurement Plan will be prepared and approved in the OPEN system, where appropriate selection/acquisition methods, market approach and type of review by IFAD will be defined.
- The Tender Coordination must anticipate and request the preparation of technical specifications of the goods and services that will be purchased, so as not to delay the execution of scheduled activities.
- The Terms of Reference for the PMU teams, especially the Procurement Specialist, must be ready and sent to IFAD before the project begins execution. The qualifications of each professional are set out in the Project Operational Manual and incorporate IFAD SECAP standards and requirements. The Hiring of the procurement specialist is a condition for disbursement.
- The Project may use two national methods, as long as the notices contain the mandatory IFAD clauses and the Eligibility Self-Certification Form:

IFAD	Government	National Law	FIDA publication deadline
NCB/ICB	Auction Electronic	10,024/2019	Minimum 30/45-days
NCB	Public Call for ATER from MDA	14,133/2021	Minimum 30 days

12 PERCENTAGES OF METHODS EXPECTED FOR THE FIRST 18 MONTHS OF IMPLEMENTATION:

○

Bidding modality to be used	Methods Provided for in the Procurement Plan	IFAD Method Quantity	Percentage of methods over the total number of planned bids for the first 18 months
Works	NCB	6	9%
Works	NS	4	6%
Goods-and non-consulting services	NCB	5	7%
Goods-and non-consulting services	NS	15	21%
Individual Consulting	ICS	33	47%
Firms Consulting	FBS	1	1%
Firms Consulting	LCS	2	3%
Firms Consulting	CQS	4	6%
Total Procurement	-	70	100%

13 STRATEGIC ACQUISITION ACTIVITIES

The Project's most strategic bids, which require the most attention in the initial phase, are:

- (i) the hiring of third sector entities that will provide “Technical Advisory (ATER) services for the Development of Agriculture, Agroecology and Sustainability”;
- (ii) the “Construction of Cisterns for human water consumption”, whose notice will also select third sector entities with expertise in the construction of these cisterns;
- (iii) the hiring of entities for “Preparation of Business Plans to strengthen processing and commercialization (medium/large)”;
- (iv) “Development of Business Plans to strengthen processing and marketing (small)”;
- (v) “Elaboration of a Gender Plan”;
- (vi) “Preparation of a Youth Plan”; It is,

- (vii) “Development of a Nutrition Plan”.

These contracts precede the execution of the project with the beneficiaries, and these plans need to be ready as soon as possible, as these are activities that require preparation time in conjunction with the Management Unit and the public that will be served, so that they can be submitted for approval and implementation.

The Management Unit will need to speed up the preparation of these Terms of Reference and respective budgets at the beginning of the project execution, in order to speed up the bidding processes and reduce the initial execution delay, taking into account the bidding time of each event, carefully to the processes that are subject to prior review by IFAD, which analyze three stages via the OPEN system: (1st) the first non-objection will be to the Terms of Reference, Cost Estimate and Draft Notice; the (2nd) will be after the publication phase, on the analysis of the evaluation report containing the award of the winners; the (3rd) will be issued on the contractual draft. The contract can only be signed after IFAD issues the no objection.

14 ACTIVITIES FOR THE FIRST 18 MONTHS OF THE PROJECT:

13.1) GOODS – TOTAL: EUR\$ 3.418.000,00

AWPB/Component Ref	No	Description	Non Consulting	Funding	Lot No/Description	Project Area or Procuring Entity	Plan vs. Actual	Pre-or Post Qualification	Prior or Post Review	Procurement Method	Envelopes	Amount (EUR)
1.1.2		Technical Advisory (ATER) for Development of Agricultural and Sustainable Agriculture	Yes	IFAD/AECID			Plan	Post-Qual	Prior Review	NCB	1	1.012.500,00
			Yes				Actual					
1.1.3		Agriculture Training for access to Public Policies /b	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	37.500,00
			Yes				Actual					
1.1.4		Land regularization	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	18.000,00
			Yes				Actual					
1.1.4		Environmental Regularization	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	4.500,00
			Yes				Actual					
1.2.1		Preparation of Business Plans to strengthen processing and marketing (medium/large)	Yes	USERS			Plan	Post-Qual	Post Review	NCB	1	120.000,00
			Yes				Actual					
1.2.3		Preparation of Business Plans to strengthen processing and marketing (small size)	Yes	USERS			Plan	Post-Qual	Post Review	NS	1	70.000,00
			Yes				Actual					
1.3.1		Preparation of a Gender Plan prepared and implemented	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	37.500,00
			Yes				Actual					
1.3.2		Preparation of a Youth Plan prepared and implemented	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	19.500,00
			Yes				Actual					
1.3.3		Preparation of a Nutrition Plan prepared and implemented	Yes	AECID			Plan	Post-Qual	Post Review	NS	1	19.500,00
			Yes				Actual					

3.3.6	Acquisition of experiments and solutions in biosaline agriculture /i	Yes Yes	AECID	Plan	Post-Qual				1	
				Actual		Post Review		NS		5.000,00
3.4.2	Workshops, workshops, knowledge routes and/or exchange seminars	Yes Yes	AECID	Plan	Post-Qual	Post Review			1	
				Actual				NS		30.000,00
3.4.3	Logistics Support for Triangular and South-South Cooperation /k	Yes Yes		Plan	Post-Qual	Prior Review			1	
				Actual				NCB		500.000,00
4.1.1	Acquisition of IT equipment and accessories	Yes Yes	GOV	Plan	Post-Qual	Post Review			1	
				Actual				NCB		250.000,00
4.1.2	Acquisition of equipment (furniture)	Yes Yes	GOV	Plan	Post-Qual	Post Review			1	
				Actual				NS		100.000,00
4.1.5	IDACE system acquisition	Yes Yes	AECID	Plan	Post-Qual	Post Review			1	
				Actual				NS		50.000,00
4.1.6	Vehicle Acquisition	Yes Yes	GOV	Plan	Post-Qual	Post Review			1	
				Actual				NCB		240.000,00
4.2.1	Management System (PDRL and other activities) and M&A	Yes Yes	AECID	Plan	Post-Qual	Post Review			1	
				Actual				NCB		200.000,00
4.3.3	Leasing of commercial vehicles /c	Yes Yes	AECID	Plan	Post-Qual	Post Review			1	
				Actual				NCB		225.000,00

13.2) WORKS – TOTAL: EUR\$ 5.016.836,00

AWPB/Component Ref	No	Description	Non Consulting	Funding	Lot No/Description	Project Area or Procuring Entity	Plan vs. Actual	Pre-or Post Qualification	Prior or Post Review	Procurement Method	Envelopes	Amount (EUR)
4.1.3		UGP Reform	Yes <i>Non Consulting</i>	AECID			Plan					
							Actual	Post-Qual	Prior Review	NCB	1	800.000,00
4.1.4		Renovation of EMATERCE UGP offices (5 offices - unit cost of EUR 200,000.00)	Yes <i>NON</i>	AECID			Plan					
							Actual	Post-Qual	Prior Review	NCB	1	200.000,00
2.1.1		Implementation Service for Community Rural Water Access	Yes <i>NON</i>	AECID			Plan					
							Actual	Post-Qual	Post Review	NCB	1	160.000,00
2.1.2		Rehabilitation, improvement and expansion services for Community Rural Water Access	Yes <i>NON</i>	AECID			Plan					
							Actual	Post-Qual	Post Review	NS	1	32.500,00
2.1.3		Community water reuse services for production /b	Yes <i>NON</i>	AECID			Plan					
							Actual	Post-Qual	Post Review	NS	1	28.000,00

13.3) CONSULTING– TOTAL: EUR\$ 1.349.000,00

AWPB/Component Ref	No	Description*	Grant	Non Consulting	Funding	Project Area or Procuring Entity	Plan vs. Actual	Shortlist (Yes No)	Prior or Post Review	Procurement Method	Amount (EUR)
1.2.2		Specialized Technical Consultancy (CTE) to strengthen processing and commercialization (medium/large) /c		no	GOV		Plan	Yes	Post Review	ICS	
							Actual				30.000,00
1.2.4		Specialized Technical Consultancy (CTE) to strengthen small-scale processing and commercialization		no	GOV		Plan	Yes	Post Review	ICS	
							Actual				20.000,00
3.4.1		Preparation of Knowledge Management studies on climate-resilient agriculture /j		no	GOV		Plan	Yes	Post Review	ICS	
							Actual				20.000,00
3.5.1		Assistance to the Project Management Unit (UGP) in the		no	GOV		Plan	Yes	Prior Review	ICS	
							Actual				300.000,00
4.2.2		Impact Assessment Studies		no	AECID		Plan	Yes	Prior Review	ICS	
							Actual				200.000,00
4.2.4		Study of identification and prioritization of communities		no	AECID		Plan	Yes	Post Review	ICS	
							Actual				150.000,00

4.2.5		Study on Free, Prior and Informed Consent (CLPI)		no	AECID		Plan	Yes	Post Review	ICS	
							Actual				20.000,00
4.2.6		Studies on Knowledge Management Products		no	AECID		Plan	Yes	Post Review	ICS	
							Actual				10.000,00
4.4.9		Specialist in component 1		no	GOV		Plan	Yes	Prior Review	ICS	
							Actual				29.000,00
4.4.10		Specialist in component 2 (sanitation)		no	GOV		Plan	Yes	Post Review	ICS	
							Actual				29.000,00
4.4.11		Specialist in component 3		no	GOV		Plan	Yes			
							Actual		Post Review	ICS	29.000,00
4.4.12		Full financial specialist		no	GOV		Plan	Yes			
							Actual		Post Review	ICS	27.000,00

44.20	Specialist in Administrative Management	no	GOV	Plan	Yes					
				Actual		Post Review	ICS			27.000,00
4.4.21	Field technicians I (regional project offices)	no	GOV	Plan	Yes					
				Actual		Post Review	ICS			14.000,00
4.4.22	Field technicians II (regional project offices)	no	AECID	Plan	Yes					
				Actual		Post Review	ICS			14.000,00
4.4.23	Field technicians III (regional project offices)	no	AECID	Plan	Yes					
				Actual		Post Review	ICS			14.000,00
4.4.24	Field technicians IV (regional project offices)	no	AECID	Plan	Yes					
				Actual		Prior Review	ICS			14.000,00
4.4.25	Field technicians V (regional project offices)	no	AECID	Plan	Yes					
				Actual		Post Review	ICS			14.000,00
4.4.26	VI field technicians (regional project offices)	no	AECID	Plan	Yes					
				Actual		Post Review	ICS			14.000,00
4.4.27	Field technicians VII (regional project offices)	no	AECID	Plan	Yes					
				Actual		Prior Review	ICS			14.000,00

4.4.28		Field technicians VIII (regional project offices)		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	14.000,00
4.4.29		Field technicians IX (regional project offices)		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	14.000,00
4.4.30		Field technicians		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	14.000,00
4.4.31		XI field technicians (regional project offices)		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	14.000,00
4.4.32		XII field technicians (regional project offices)		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	14.000,00
4.4.33		Administrative and financial support		no	AECID		Plan	Yes			
							Actual		Post Review	ICS	101.000,00

ANNEX IX - PROCUREMENT SUPERVISION PLAN

PAULO FREIRE PROJECT – PHASE 2 PROCUREMENT SUPERVISION PLAN April 2024

1. Introduction

The Paulo Freire Project – Phase II (PPF II), officially named: Capacity Development Project for Overcoming Hunger and Mitigating the Effects of Poverty and Extreme Rural Poverty, is an action financed by IFAD and AECID and executed by the State Government of Ceará, which will also provide counterpart resources. The Project will be executed by the Secretariat for Agrarian Development (SDA), which will be responsible, through a Project Management Unit (PMU), for implementing the actions, in addition to carrying out technical coordination, management of socio-environmental safeguards, financial management, audits and M&A. The presence of the project in the field will be guaranteed through a technical team allocated in up to 5 (five) EMATERCE regional offices. IFAD will be responsible for supervising project activities, including procurement activities.

2. IFAD's supervisory role within the project

Reviewing procurement processes is an essential part of IFAD's fiduciary responsibility. By overseeing projects and providing implementation support, IFAD aims to ensure that project procurement processes comply with the guidelines established for the project and implementation manual.

3. Scope of supervision

Project design mission resulted in a **moderate risk** rating and therefore supervision falls within the standard scope. Supervision will include:

1. Review of the Project Risk Matrix (PRM).
2. Preview Review.
3. Later Review.
4. Supervision of subprojects, agreements, etc.
5. Review of the Procurement Plan.
6. Supervision of internal processes.

3.1 PRM (Project Risk Matrix) Reviews

The PRM is a tool that supports IFAD's risk-based approach to project Procurement Supervision. Its main objective is to ensure adequate mitigation of the main risks of a project execution agency not efficiently executing procurement processes and their resources. During the design of the Project, a Procurement Risk Assessment was carried out which involved updating the previous dimensions of the PRM assessment at the country level and carrying out an assessment of the dimension at the institutional level.

The PRM must be updated once a year during project supervision. Determining the scope of procurement reviews will follow a risk-based approach based on PRM assessments.

3.2 Prior Review

Prior Review is an additional risk mitigation measure during the various phases of a procurement process. The prior review will include a review of the following documents: the Procurement Plan and

procurement documents: Requests for Proposals, Requests for Quotations, Assessment Reports, award recommendations, draft contracts and their modifications, etc.

Through the OPEN system, Projects manage procurement procedures, insert documents and submit them to IFAD for prior examination and issuance of the No-Objection.

The Prior Review will address the following:

1. Compliance with Financing Agreement and Procurement Arrangement Letter (PAL), or any subsequent changes reflected in the mission reports (e.g., monitoring, mid-term review, memory aid, etc.) and consistency with the approved POA and PP.
2. Adequacy and quality of tender documents.
3. Review of compliance with relevant provisions and IFAD General Conditions for Financing, Procurement Guidelines, Procurement Manual, IFAD procurement documents or standardized forms, IFAD Fraud and Corruption Prevention Policy.
4. Whether assessments were carried out in accordance with IFAD guidelines.
5. The draft contract is consistent with the contract form that appears as part of the bidding document. Whether there is consistency between the price appearing in the contract and that appearing in the valuation report (to which IFAD issues a No-Objection). NOTE: *See checklist appendix: Non-objection checklists for pre-review of the IFAD Procurement Manual).*

3.3 Post Reviews

This is the assessment carried out by IFAD in the context of supervision and implementation support or desk reviews of procurements undertaken by the borrower/beneficiary for a sample of contracts or ongoing procurement activities. The assessment will ensure that the procurement principles, provisions and procedures set out in the IFAD Project Procurement Guidelines and Procurement Manual, Financing Agreement and Procurement Arrangement Letter, in the MOP, standardized templates (e.g. tenders for goods, works and services) and related systems are available and fully explained to purchasing and project management personnel.

A minimum of ten percent of ongoing contracts must be reviewed. Sampling should be risk-based and take into account: (i) the PMR assessment, with riskier projects having a larger sample, and (ii) contract risk classification, to ensure that riskier contracts constitute a larger proportion of the sample. Will be evaluated:

1. The bidding process (for each contract)
2. The evaluation process (for each contract)
3. The award and negotiations (for each contract)
4. The contract and the contract management and administration process (for each contract)
5. Identify problems and weaknesses (and the relevant underlying causes of those problems and weaknesses) in contract administration and management and recommend improvements.
6. Review of issues identified in previous reviews and issues related to previous aide-mémoire and procurement issues identified in project audit reports.
7. Review of project procurement filing system and ease of document retrieval.
8. Periodically review any significant changes to the Borrower/Beneficiary's procurement system and practices and ensure that the Project's procurement procedures and systems are updated accordingly.
9. Determine the procurement capacity within the UGP, the availability of dedicated staff and the suitability of their experience and qualifications.

10. Assess the training needs of procurement staff and ensure that relevant training is planned and provided in a timely manner to project management and procurement staff.
11. Territorial visits as necessary to complete the above tasks, especially when a contract management issue is identified (See checklist appendix: No Objection Checklists for Pre-Review of the IFAD Procurement Manual).

3.4 Project supervision

As part of a procurement review carried out during supervision, a project's PRM will need to be reviewed and updated in light of changing conditions or circumstances, for example with respect to the national procurement system, improvement or deterioration of results project procurement, overall implementation of progress and delivery of results. Hiring and prior review limits may be reviewed, and other existing risk mitigation measures may be adjusted or new measures implemented. The procurement plan will also be reviewed during supervision and any agreed updates will be made and the revised PP will be submitted for No Objection. Oversight missions will verify documentation associated with prior reviews, as well as evaluate procurement processes undertaken by the Borrower/Recipient for a sample of contracts not subject to prior review, as shown below:

1. Review the Procurement Plan (PP).
2. Review of the hiring process.
3. Final contract review.
4. Review of contract execution
5. Review of project procurement filing system and ease of document retrieval. (See IFAD Procurement Manual appendix, No Objection Checklist for Pre-Review Checklist).

3.5 Reviews to the Procurement Plan (PP)

Procurement plans should be reviewed periodically (preferably quarterly), for example, when a PP update is submitted, before giving a NO to a PP update, and at any other time determined by the PD, for example, when performing supervision and/or implementation support activities. PP review will assess the following:

Consistency with the last approved POA:

7. The nature and quantity of goods/works/services are consistent with the activities of the POA.
8. The procurement calendar is consistent with the POA execution schedules (delivery of goods, works and services corresponds to the objectives of the POA).
9. The purchasing budget is adequate.
10. The selection of contracting methods follows the provisions of Procurement Arrangement Letter.
11. The indicated estimates seem realistic.
12. Adequacy of purchasing grouping.
13. Procurement activities are grouped systematically and logically according to procurement categories (goods/works/services).
14. Aggregation has been carried out in a way that, in general, facilitates the use of the most competitive and efficient contracting method, which guarantees the best quality-price relationship and avoids grouping.
15. Advances in implementing, updating and improving the PP, including identifying delays and significant causes, proposing adjustments to the PP and recommending improvements related

to planned or ongoing procurement processes (for example, in the preparation of Notice documents).

3.6 Internal supervision

The Tender Coordination will be responsible for supervising all daily purchasing activities, carrying out the following activities:

1. Review the Procurement Plan.
2. Monitor the daily implementation of the PP.
3. Review the following documents before submitting them for No-Objection:
 - ToR / Specifications.
 - Requests for expressions of interest.
 - Request for proposals.
 - Tender documents.
 - Assessment reports.
 - Contract preparation.

(See Procurement Performance Indicator for Supervisory Reports)

Appendix 1. Supervision Plan

Y/N	Type of supervision	Purpose of supervision	Responsibility	Departures	Frequency
1	PRM Reviews	<p>PRM assessment, issues identified in reviews of previous procurements, and taking into account the Project implementation phase.</p> <p>For each ongoing project, the PRM will have to be updated once a year during project supervision.</p>	Procurement Coordinator (SPO) or Consultant	<p>- A summary of key project procurement risks and corresponding mitigation actions to address and minimize their impact/likelihood</p> <p>- Grades assigned</p> <p>- Contributions to memory aid</p>	Once a year
2	<i>Review Preview</i>	Review procurement documentation associated with prior reviews, as well as evaluate procurement processes undertaken by the Borrower/Recipient to obtain a sample of contracts not subject to prior review.	Procurement coordinator or Consultant.	No objection from interested party	Based on requests
3	<i>Review Posterior</i>	The objective is IFAD's assessment of the procurement processes carried out by the Borrower/Beneficiary for a sample of contracts that are not subject to Prior Review.	Procurement Coordinator or Consultant	Review the working document	As marked
4	Sub- project supervision	Timely check the procurement documentation associated with previous reviews, as well as evaluate the procurement processes carried out by the Borrower/Recipient for a sample of contracts not subject to prior review; Update the PRM (see 1 above)	Procurement Coordinator or Consultant	<p>Contributions to memory aid</p> <p>Contributions to the supervisory report</p> <p>Contributions to the Management Charter</p>	As marked

Y/N	Type of supervision	Purpose of supervision	Responsibility	Departures	Frequency
5	Procurement Plan Review	<p>Procurement Plans should be reviewed periodically (preferably quarterly), for example, when a PP update is submitted, before giving a “No Objection” to the PP update, and at any other time.</p> <p>for example, when monitoring and/or implementation support activities are carried out.</p>	Procurement Coordinator (SPO) or Consultant	Updated purchasing plan	Quarterly

ANNEX X - Sanitary SURVEY

Sanitary SURVEY

TERRITORY:

MUNICIPALITY:

COMMUNITY:

- Quilombola
- Indigenous
- Settlement
- Family farming

COMMUNITY NAME:

CPF of the person responsible for the information:

NUMBER OF PEOPLE IN THE FAMILY:

GEOGRAPHICAL COORDINATES OF THE PROPERTY:

Sanitary sewage:

a) Does the house have a bathroom?

- Yes**
- No**

How many?

b) How far is the bathroom from the house (in meters)?

c) What's the status of this bathroom?

- Bad**
- Fair**
- Good**
- Very good**

d) Where does the sewage from the toilet go?

- Hole**
- Trench**
- Open sky**
- Rio**
- Do not know**

e) Does the family defecate in the open?

- Yes**
- No

f) In your opinion, who suffers most from the lack of toilets?

- Men
- Women
- Boys
- Girls

Why?

- Damages personal hygiene
- Lack of privacy
- Causes disease
- Risk of sexual violence or harassment

g) Would your family be interested in learning about a new (more ecological) sewage treatment system?

- Yes**
- No

h) Is there a water well near the areas where sewage treatment plants are to be built?

- Yes**
- No**

Technician's opinion:

- The bathroom in use **does not** meet minimum sanitary standards; see attached photo.
- The bathroom in use meets the minimum sanitary standards; see attached photo.
- There is **no** adequate treatment for black and gray water; see photo in Annex.
- There is adequate treatment for black and gray water; see attached photo.
- There is an area available for the installation of sewage treatment; see attached photo.
- There is **no** area available for installing sewage treatment; see attached photo.

Identification of the technician responsible for the information:

Date of visit:

ANNEX XI - SISAR

WATER GLOBAL PRACTICE WSSGS UTILITY TURNAROUND SERIES

Case Study- SISAR Ceará, Brazil

Wilson Dos Santos Rocha and Maria Salvetti

AUGUST 20 17

Key Characteristics of Aggregation Case Study

SISAR CEARA, BRAZIL	
Context	<ul style="list-style-type: none">- Upper-middle-income country• Aggregation covering rural areas• Low level of WSS performance
Purpose efficiency	Access to water provision, performance, solidarity, economic
Scope	Water functions and services
Scale	<ul style="list-style-type: none">- Watershed limits• Localities covered: 153 for water• Population covered: 89,500 inhabitants for water• Connections: 25,548 for water• Network length: 415 km for water
Process	Bottom-up with financial incentives
Governance	<ul style="list-style-type: none">- Special-purpose vehicle• Private association• Decision making: General assembly in which each affiliated association has one vote• Asset transfer: Operating assets owned by the state, non-operating assets (office, workshop, vehicles, and maintenance tools) owned by SISAR• Liability: No liability as there was no service before

- Staff transfer: No staff transfer as there was no service before
 - Clear entry and exit rules
-

Outcome

- Positive with financial sustainability for operation
-

Findings

- Successful model of aggregated utility to provide service in rural areas which has been duplicated in other parts of the country, close relationship between communities and their water associations, community-based labor force hired part-time, performance-based monitoring

In 1996, when SISAR was created in the Brazilian state of Ceará, its main purpose was to bring access to water supply in rural areas where such service was not available before. These areas had been left aside by state water supply and sanitation (WSS) companies, which had predominantly focused on urban access to WSS services. From 1996 to 2016, SISAR's coverage expanded dramatically, from 18 to 153 localities it reached operational cost recovery in 2012. This success, which has encouraged the replication of the SISAR model in other rural contexts in the Brazilian states of Piauí and Bahia, is mainly based on a gradual improvement strategy and a specific labor arrangement.

for the purposes of WSS service provision, communities located outside city borders are considered rural. This represents a significant portion of the population that remains unserved by state companies, which focused on urban areas, serving municipalities' headquarters and their surrounding areas. This institutional vacuum of water and sewage services in rural areas gave rise to aggregation models such as SISAR.

National Policy for Urban WSS Aggregation Leaving Aside Rural Areas

In the early 1970s, Brazil implemented a major service aggregation reform through PLANASA-the National Sanitation Plan. Municipal governments- which, until then, had been playing the role of service providers-began to delegate these services to state governments, encouraged by the criterion to access federal investments predominantly through these companies. Between 1970 and 1983, investments in the sector reached an average of 0.46 percent¹ of GDP. But PLANASA was affected by the global financial crisis starting in 1983. Between 1980 and 1990, investments in the sector dropped to 0.24 percent of GDP, then to 0.16 percent during the 1990s; in 2012 they reached 0.11 percent-the lowest level yet. In Brazil,

A Community-Based Aggregation Model to Provide Access to Water in Rural Locations

The state of Ceará spans an area of 148,920 km², with 184 municipalities and an estimated population of 8.9 million inhabitants in 2016. CAGECE, the state water and sanitation company, supplies water to 151 municipalities and sewage services to 73. The 33 remaining municipalities have their own services. The WSS sector institutional is composed of a state-level regulatory agency called ARCE (the Regulatory Agency for Public Services in Ceará) which regulates energy, water, and sanitation activities; the Superintendent of Hydro Works (SOHIDRA); the State Secretariat of Agrarian Development (SDA); and the State Secretariat of Cities.

The process that gave birth to SISAR did not originate from a sector reform policy enacted nationally or at the state level, but from a state government investment program supported by international financial institutions. What prompted the state government to create the SISAR model were the conclusions that water and sanitation investments in rural areas were no longer effective and that they would need substantial improvements and replacements in the very short term. In this context, SISAR was originally set up in 1996 in the municipality of Sobral, aggregating 18 water users' associations. Its creation took four years. SISAR required an intense participatory process, as every family in a community had to agree before its association would join. Many debates also took place with

municipalities that initially resisted the idea but later came to support it. SISAR/Sobral was so successful that, in 2001, the state government decided to expand the model-through CAGECE-to seven additional regions, one for each river basin in the state.

The eight SISARs in Ceará are autonomous legal entities-non-profit associative organizations-making their own decisions, having their own governing bodies, and managing their own operations and finances.

They are based on community associations that join together to share service delivery-some of the activities being carried out by local associations and some by SISAR-to ensure the proper operation and maintenance of water supply systems. SISAR is presided over by a general assembly, in which each affiliated association has one vote. It also has administrative and fiscal councils. Its executive structure includes (a) a board made up of the presidents and chairpersons of the affiliated associations; (b) a team hired and paid to provide billing and collection services, as well as systems maintenance and social support to management; (c) a resident hired by each local association to carry out daily systems operation. Operating assets are owned by the state, whereas non-operating assets (office, workshop, vehicles, and maintenance tools) belong to SISAR. CAGECE provides technical, training, and business management support to SISAR. The aggregation model

of SISAR did not cause conflicts over asset ownership, since the communities that join usually did not have any service at all.

The number of locations gathered under SISAR Sobral (which was renamed SISAR/BAC for the name of the Acaraú and Coreaú river basins) reached 74 in 2006 and 153 in 2016. It presently provides water to 25,548 connections (family households), equivalent to 89,500 inhabitants. SISAR usually operates in communities with 25 to 800 families. The scope of aggregation covers the entire water supply process-abstraction, treatment, and distribution through network and connections, and all associated functions-administrative, financial, and operational activities, with the latter being shared with local associations. Experiences in Ceará with sewage solutions have so far been incipient and have focused on only on individual households.

MAP 1. Service Area of SISAR Ceará

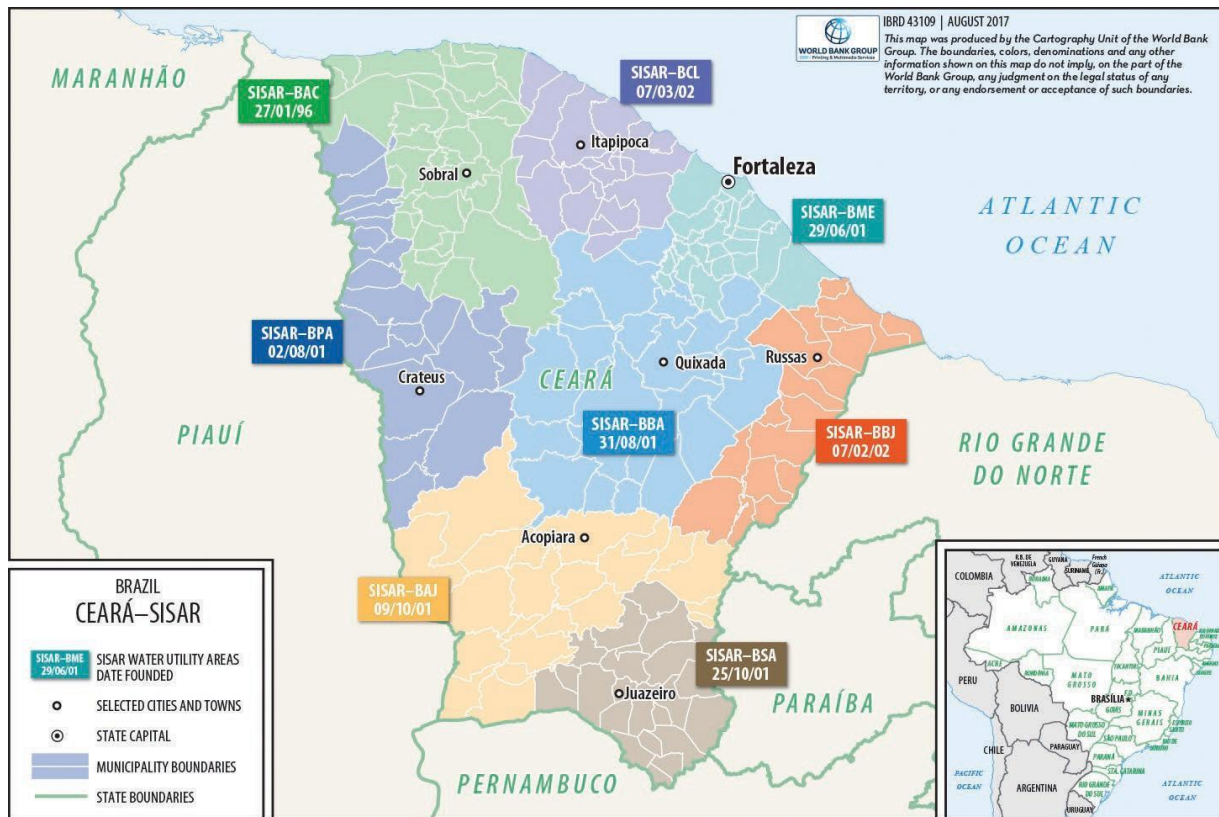


TABLE 1 Evolution of the Number of Locations Served by SISAR Ceará

Year	Number of aggregated locations
1996	18
2001	30
2006	74
2011	101
2016	153

The process of aggregation was voluntary and largely incentivized, as communities and their associations joined SISAR in order to obtain funds to invest in WSS equipment. Generally, investment comprises the state-level rural development program financed by the World Bank (PDRS, the São José Project), which dates back to 1995. Other investment sources have also contributed to SISAR aggregation, such as funds from the federal government made available through FUNASA-the National Health Foundation-as well as the Ministry of National Integration and Kreditanstalt für Wiederaufbau (KfW). Entry into SISAR aggregation was done on a voluntary basis from 1996 to 2010. Since then, it became mandatory for associations that wanted to join to have access to investment funds.

TABLE 2 Sources of Funding for Investment Projects within the SISAR Ceará Service Area

Investment source	Number of communities total	Share of total (%)
State program with World Bank loan	98	64.1

State program with KfW loan	27	17.6
Federal program through FUNASA	24	15.7
Federal program through Ministry of Integration	4	2.6

A Gradual Improvement Strategy Monitored through Performance Indicators

Prior to joining SISAR, most localities had no water supply. As such, SISAR aggregation was primarily aiming at water provision, thereby improving population health, and a higher service quality with guaranteed operation

and maintenance capacities. In order to monitor the achievements of SISAR/BAC, some performance indicators were selected and targets were set. They encompass quality, technical and financial elements:

- A water quality target of 95 percent was set in reference to a water quality index; the recorded performance fluctuates monthly, with values ranging from 65 percent to 91 percent.
- An asset recovery target of 63 percent of the existing systems has been defined; the level achieved so far reaches 33 percent.
- The continuity of service is monitored, with a target of 24 hours per day. The values currently range from 6 to 15 hours.
- Leakage is not monitored at present as macrometers have not yet been fully installed. However, it should be noted that the communities are 100 percent covered by micrometers.
- A billing ratio target has been set at 20 percent and currently reaches 18 percent.
- A collection ratio objective has been set at 100 percent and currently reaches 96 percent.

This performance monitoring, which is carried out by CAGECE in its role as management supporter, proved to be one of the key factors contributing to the model's efficiency. Indeed, it allows a sequenced strategy, spreading efforts and changes over time, thus not burdening the service provider with having to do too much too quickly. It also proved very useful to report to member associations on progress being made, thus facilitating

account- ability and engagement with local Communities.

Operational Sustainability Achieved after 15 Years, Based on Staffing Arrangements

Although the primary aim of the aggregation was provision of water access, aggregation also allowed economies of scale when purchasing water treatment products and performing equipment maintenance. It also allowed cross-subsidies, which benefit households in smaller localities. However, the SISAR

aggregation model was not always financially sustainable. In addition to the investment subsidies received, SISAR/BAC also received funds from CAGECE to cover operating costs. These were used to pay for part of the technical staff and vehicles. These operational subsidies were gradually phased out and were completely stopped after 15 years. Data from 2016 show the financial sustainability achieved by SISAR/BAC, which generates an operating surplus of 9.6 percent (US\$1.78 million in revenue and US\$1.63 million in OPEX). This result partly draws on the staffing arrangement chosen by SISAR. Its technical staff consists of 20 employees, with an average salary of US\$1,346 per month. It is complemented with local staff belonging to each member association at an average wage of US\$148.3 per month per operator. These workers only work part-time and usually carry out other productive activities. Hence, for local operations, SISAR draws on community labor hired by the association, which reduces average labor costs, compared with hiring full-time itinerant employees. This staffing arrangement allows SISAR to control labor costs and is key to achieving and maintaining operational sustainability.

Aggregation Case Study at a Glance

Key Lessons Learned from Aggregation Case Study

Aggregation Takes Time to Show Results; Gradual Improvement Strategies Are Particularly Successful

Both the aggregation design and implementation take time; in particular, implementation is a continuous process that can spread over decades. As a result, aggregation benefits also

take time to materialize. A gradual improvement strategy with regard to the main purpose of the aggregation proved successful in many case studies, as it spread the efforts and changes to be made over time, thus not burdening utilities with having to do too much too quickly. Sequenced strategies often use performance-based targets that are monitored and regularly reported on. In the Brazilian state of Ceará, some performance indicators were selected and targets were set to monitor the gradual achievements of the

aggregated utility, SISAR. The target for the water quality index was set at 95 percent; best performance currently fluctuates between 65 percent and 91 percent. The continuity of service provision target aims at 24 hours; present values range from 6 to 15 hours.

Strong Citizens Engagement and Clear Accountability Improve Support for Aggregations

Accountability mechanisms, embedded in the aggregation and utility routine processes, help minimize customers' sense of distance from the utility and overcome political resistance. The creation of SISAR Ceará, an organization based on community associations, required an intense participatory process, as every family in a community had to agree before the association would join SISAR. The São José investment project routinely involves rural workers' unions and producer cooperatives. Along with the SISAR aggregation process, the social participation of communities and their associations has intensified, as several meetings and training sessions take place yearly.

Financial Support and/or Incentives (a "Big Push") Are Important to Help Services Get Out of the Low-Level Equilibrium Trap

To boost the success of aggregation reforms, national and external stakeholders can provide financial support to aggregating utilities to help them achieve the aggregation purpose.

In most cases, these subsidies are used to fund investment programs thus acting as the Big Push, which helps WSS services get out of the low-level equilibrium trap. In Ceará, the investments implemented by the aggregated utility SISAR were funded for 18 percent by federal credits and for 82 percent by the central government through loans from international financial institutions. SISAR investments were targeted toward initial set-up of WSS infrastructure, as most localities covered by the aggregated utility had no water supply.

Note



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ANNEX XII - ESTIMATED NUMBER OF BENEFICIARIES PER ACTIVITY

The table below shows the estimated number of families to benefit from each activity, according to the defined budget.

To count families without repetition, a shading percentage has been defined, whereby some families will only receive one benefit. In other words, there will be cases where families receive at least one Project activity, or cases where families can receive more than one activity. M&E must keep the system up to date so that families are not double counted.

The estimate below predicts that 84,045 people will benefit from at least one of the Project's activities. As mentioned, this is an estimate. Therefore, to guarantee full compliance with the targets, it was decided to reduce the target to 80,000 families.

To evaluate the impact of the Project, the study will identify and accurately capture the results achieved in all the existing dimensions, i.e., according to the type of benefit received by the family.

In the case of the treatment group, which is made up of families who will benefit from the Project's activities, PPF II will need to identify which families will have received benefits from the Project and the type of benefit. For example, those benefiting from ATER and PDRL or those benefiting only from social technology, etc. This information will be extremely important for drawing up the sampling plan, with specific strata for each result that will be assessed by the study.

The sample of the treatment group should reflect a representative picture of the beneficiaries, including women, young people and families from traditional peoples and communities and the type of investments received.

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
C1. Rural development with environmental sustainability based on agroecology								
S1.1 Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty and Technical Assistance (ATER)								
P - Local Rural Development Plans (PDRL)	Plan	380	34.200	34.200	0%	17.100	5.130	1.710
- Family productive PDRL	Plan	380						
- Territorial environmental PDRL	Plan	380						
P - Technical Assistance (ATER) for the Development of Agroecological and Sustainable Agriculture	Family	34.200	34.200	-	100%	-	-	-
p - Training farmers to access public policies	Events	300	9.000	9.000	0%	4.500	1.350	450
P - Land and Environmental Regularization	Family	2.000	2.000	600	70%	480	90	420
.- Land regularization	Family	2.000						
.- Environmental regularization (CAR)	Family	2.000						

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
S1.2 Strengthening the Marketing and Processing of Family Farming Products								
P - Business plans to strengthen processing and marketing (medium/large)	Plan	5	750	525	30%	263	79	-
p - Specialized Technical Assistance (STA) to strengthen processing and marketing (2 years) - (medium/large)	CTE PN	5	750	-	100%	-	-	-
P - Business plans to strengthen processing and marketing (small)	Plan	20	1.000	700	30%	350	105	35
p - Specialized Technical Assistance (STA) to strengthen processing and marketing (1 year) - (small)	CTE PN	20	1.000	-	100%	-	-	-
S1.3 Gender, Youth, Food Security and Nutrition								
P - Gender Plan drawn up and implemented	Plan	380	34.200	-	100%	-	-	-
P - Youth Plan drawn up and implemented	Plan	380	34.200	-	100%	-	-	-

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
P - Nutrition plan drawn up and implemented	Plan	380	34.200	-	100%	-	-	-
C2. Access to water, sanitation, and social technologies								
S2.1 Rural Community Basic Sanitation								
P - Rural Community Water Access - Implementation	Family	900	27.000	21.600	20%	10.800	3.240	756
P - Rural Community water access - Rehabilitation, improvements, and expansion	Family	300	9.000	7.200	20%	3.600	1.080	252
P - Community water reuse for production	Family	84	2.520	1.260	50%	756	189	63
P - Solid Waste Recycling Activities	Actions	25	750	375	50%	188	113	19
S2.2 Social technology for access to water and support for production								
P - Cistern for human consumption	Cistern (CH)	5.000	5.000	3.500	30%	1.750	525	175
P - Cistern for agricultural production	Cistern (PA)	4.000	4.000	2.000	50%	1.000	300	100

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
P - Reuse of family water for production	System	500	500	250	50%	175	38	13
P - Complete household sanitary module	Module	500	500	-	100%	-	-	-
P - Eco-efficient stove	Stoves	3.000	3.000	1.500	50%	1.500	225	75
P - Biodigester	Biodigester	500	500	250	50%	125	38	13
p - Trenches and other dams	Dam	100	100	-	100%	-	-	-
p - Innovation (machinery, tools, etc.)	Unit	1.000	1.000	500	50%	250	150	25
C3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semi-Arid (INOVA CLIMA)								
S3.1 Capacity building for family farmers and rural extension teams (Technical Assistance, TA)								
P - Technical assistance (TA)	courses	100	3.000	-	100%	-	-	-
P - Training courses	courses	20				-	-	-
P - Activities to exchange experiences between farmers in the state	exchanges	25	750	225	70%	113	34	11
S3.2 Promoting environmental and climate education with a gender focus in rural schools								

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
p - Sustainable management of natural resources course	Courses	60	1.200	360	70%	180	360	18
p - Seedling production and reforestation course	Courses	60	1.200	-	100%	-	-	-
P - Food safety and nutrition course	Courses	60	1.200	-	100%	-	-	-
S3.3 Promoting of research on technology and implementation pilot projects								
p - Development of eco-efficient ovens and stoves	Pilot	20	-	-	100%	-	-	-
p - Cistern water treatment equipment for human consumption	Pilot	60	-	-	100%	-	-	-
p - Use of alternatives to firewood in small cassava processing units	Pilot	12	-	-	100%	-	-	-
P - Solid waste recycling solutions for handicrafts	Pilot	5	-	-	100%	-	-	-
P - Tools for rural digital inclusion	Pilot	5	-	-	100%	-	-	-

Components / Sub-Components / Products	Unit	Qt	Families benefiting from each activity	Families without repetition between activities	Estimated repetition rate	Women (50%)	Young people (15%)	PCT (5%)
P - Experiments and solutions in biosaline agriculture	Pilot	2	-	-	100%	-	-	-
S3.4 Knowledge Management and South-South and Triangular Cooperation (SSTC)								
P - Preparation of Knowledge Management studies on climate change resilient agriculture	Studies	20	-	-	100%	-	-	-
P - Workshops, learning routes and/or exchange seminars	workshop	10	-	-	100%	-	-	-
p - South-South and Triangular cooperation	Projects	8	-	-	100%	-	-	-
S3.5 Strengthening the PMU to implement and monitor activities								
p - Advising the Project Management Unit (PMU) on the design and planning of activities, as well as drawing up the procurement plan.		1	-	-	100%	-	-	-
ESTIMATED TOTAL			246.720	84.045		43.129	13.044	4.134
ESTIMATED TOTAL - PPF II beneficiaries			388.090	80.000		40.000	12.000	4.000

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 9: Integrated Project Risk Matrix (IPRM)

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Moderate	Low
<i>Fragility and Security</i>		<i>No risk envisaged - not applicable</i>
<i>Macroeconomic</i>	<i>Substantial</i>	<i>Moderate</i>
<i>Governance</i>	<i>Moderate</i>	<i>Low</i>
<i>Political Commitment</i>	<i>Low</i>	<i>Low</i>
Sector Strategies and Policies	Low	Low
<i>Policy Development and Implementation</i>	<i>Low</i>	<i>Low</i>
<i>Policy alignment</i>	<i>Low</i>	<i>Low</i>
Environment and Climate Context	Substantial	Moderate
<i>Project vulnerability to climate change impacts</i>	<i>Substantial</i>	<i>Moderate</i>
<i>Project vulnerability to environmental conditions</i>	<i>Substantial</i>	<i>Moderate</i>
Project Scope	Moderate	Low
<i>Technical Soundness</i>	<i>Moderate</i>	<i>Low</i>
<i>Project Relevance</i>		<i>No risk envisaged - not applicable</i>
Institutional Capacity for Implementation and Sustainability	Substantial	Moderate
<i>Monitoring and Evaluation Arrangements</i>	<i>Moderate</i>	<i>Low</i>
<i>Implementation Arrangements</i>	<i>Substantial</i>	<i>Moderate</i>
Project Financial Management	Moderate	Moderate
<i>Project External Audit</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Accounting and Financial Reporting</i>	<i>Substantial</i>	<i>Moderate</i>
<i>Project Internal Controls</i>	<i>Low</i>	<i>Low</i>
<i>Project Funds Flow/Disbursement Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Budgeting</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Organization and Staffing</i>	<i>Moderate</i>	<i>Low</i>
Project Procurement	Moderate	Moderate
<i>A.1 Legal, Regulatory and Policy Framework</i>	<i>Moderate</i>	<i>Moderate</i>
<i>A.2 Institutional Framework and Management Capacity</i>	<i>Low</i>	<i>Low</i>
<i>A.3 Accountability, Integrity and Transparency of the Public Procurement System</i>	<i>Low</i>	<i>Low</i>
<i>A.4 Public Procurement Operations and Market Practices.</i>	<i>Substantial</i>	<i>Substantial</i>
<i>B.1 Assessment of Project Complexity</i>	<i>Moderate</i>	<i>Moderate</i>
<i>B.2 Assessment of Implementing Agency Capacity</i>	<i>Low</i>	<i>Low</i>
<i>Project Procurement Overall</i>	<i>Moderate</i>	<i>Moderate</i>
Environment, Social and Climate Impact	Substantial	Low
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Substantial</i>	<i>Moderate</i>
<i>Greenhouse Gas Emissions</i>	<i>Low</i>	<i>Low</i>
<i>Physical and Economic Resettlement</i>	<i>Low</i>	<i>Low</i>
<i>Community health, safety and security</i>	<i>Low</i>	<i>Low</i>

Risk Category / Subcategory	Inherent risk	Residual risk
<i>Labour and Working Conditions</i>	<i>Moderate</i>	<i>Low</i>
<i>Indigenous People</i>	<i>Moderate</i>	<i>Low</i>
<i>Cultural Heritage</i>	<i>Low</i>	<i>Low</i>
<i>Resource Efficiency and Pollution Prevention</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Biodiversity Conservation</i>	<i>Moderate</i>	<i>Low</i>
Stakeholders	Moderate	Low
<i>Stakeholder Grievances</i>	<i>Moderate</i>	<i>Low</i>
<i>Stakeholder Engagement/Coordination</i>	<i>Low</i>	<i>Low</i>
Overall	Moderate	Low

Country Context	Moderate	Low
<i>Fragility and Security</i>		<i>No risk envisaged - not applicable</i>
There are no identified security-related risks in the project area.		
<i>Macroeconomic</i>	<i>Substantial</i>	<i>Moderate</i>
Risk: Difficulty in mobilizing a counterpart from the Ceará Government.	Substantial	Moderate
Mitigations: The design period coincided with the preparation of the 2024-2027 Multiannual Plan, in which the project is mentioned as a priority action of the Ceará Government, guaranteeing budget provision for a counterpart. In addition, the counterpart funds will come from various sources, mainly from SDA and other secretariats' programs and policies, thus diversifying the sources and reducing the risk.		
<i>Governance</i>	<i>Moderate</i>	<i>Low</i>
Risk: The Project Management Unit and partner institutions do not have all the knowledge and capacities to implement the new project actions (concerning phase 1 actions).	Moderate	Low
Mitigations: The lessons learned from the implementation of phase I have been incorporated into the PMU design, thus contributing to stronger governance. The institutional arrangements with the main partners will be defined considering these lessons learned to ensure the best possible governance by the PMU and good implementation of the innovative actions. A project management committee will also be established, which will be a space for applying good governance. Capacity-building actions targeting the implementing teams from the state and other institutions will be important mitigating measures. PPF II will ensure that specialized service providers for implementation of innovative actions and for capacity building on government institutions.		
<i>Political Commitment</i>	<i>Low</i>	<i>Low</i>

<p>Risk:</p> <p>Considering that the project meets a demand from the Ceará Government and, in particular, from the SDA, there is a high level of political commitment from the state, and PPF II will be an important instrument for combating rural poverty in the state.</p>	Low	Low
<p>Mitigations:</p> <p>The SDA was directly involved in the different phases of the project design. Part of the team that managed PPF I, as well as those responsible for various SDA departments, were also involved in the project elaboration.</p>		
Sector Strategies and Policies	Low	Low
<i>Policy Development and Implementation</i>	<i>Low</i>	<i>Low</i>
<p>Risk:</p> <p>In the current context and considering that the PPF II is being designed considering the government's new priorities, there is no risk that the project proposal is not representative of these priorities, including the beneficiary population and the main programs to combat rural poverty.</p>	Low	Low
<p>Mitigations:</p> <p>Working in partnership and complementarity with various SDA coordinators and agencies (EMATERCE, IDACE, COAGUA, agroecological production, "Fomento" program, access to water, animal production, marketing), universities, research institutes (EMBRAPA), other projects (PSJ IV), other secretariats (SEMA) and civil society organizations should contribute to strengthen and guarantee the project's alignment with other government lines of action. The project will focus on knowledge management, valuing the results of the monitoring and evaluation system, good practices, and lessons learned. This will be the basis for the project's experience to contribute to improving public policies to combat rural poverty in Ceará.</p>		
<i>Policy alignment</i>	<i>Low</i>	<i>Low</i>
<p>Risk:</p> <p>The risk that PPF II is not aligned with the main policies of the Ceará Government is low.</p>	Low	Low
<p>Mitigations:</p> <p>The design period coincided with the preparation of the 2024-2027 Multiannual Plan, in which the project is mentioned as a priority action of the Ceará Government and the SDA, strengthening strategic alignment with the government's main other policies, projects (such as the São José IV project) and priorities (combating rural poverty and hunger, including nutritional issues, access to water, strengthening the capacities of rural women, youth and traditional peoples and communities, agroecological approach and preservation of natural resources). These alignments with the main policies of the Ceará Government are in line with IFAD's priorities. The actions that will be developed in the context of knowledge management will be another means of ensuring the project's alignment with the main policies underway.</p>		
Environment and Climate Context	Substantial	Moderate
<i>Project vulnerability to climate change impacts</i>	<i>Substantial</i>	<i>Moderate</i>

<p>Risk:</p> <p>Risk(s): Climate models point to a significant increase in temperature (up to 1 degree C before 2040) and the frequency of extreme events in Ceará. The models also predict a drop in precipitation, but not a significant one (around 2%). These changes will have a negative impact on plant and animal production and productivity and biodiversity, as well as exacerbating problems resulting from water scarcity and fires. The tendency is for family farming incomes to fall, contributing to an increase in inequality, exacerbating existing conflicts (e.g., access to water) and migratory flows from the countryside to the city.</p>	Substantial	Moderate
<p>Mitigations:</p> <p>Mitigations: The Project aims to support the development and adoption of agroecological agriculture associated with environmental recovery and preservation, through the adoption of the following agroecological practices: (i) recovering pastures and agricultural soils, improving the supply of environmental services of interception and storage of rainwater; (ii) promotion, via ATER, of polycultural systems (more resilient than conventional monoculture systems) with animal and plant species adapted to the social and environmental conditions of the region; (iii) strengthening of production chains and valorization of local socio-biodiversity products; (iv) treatment and proper use of animal waste; and (v) agricultural production adapted to climate change. In addition, solutions will be promoted to provide access to water of better regularity and quality for the target communities.</p>		
<i>Project vulnerability to environmental conditions</i>	<i>Substantial</i>	<i>Moderate</i>
<p>Risk:</p> <p>Risk(s): The main environmental risks that could affect the Project are water scarcity, irregular rainfall, high temperatures, forest fires and desertification.</p> <p>Water scarcity: Ceará's climate is predominantly semi-arid (except for its coastal strip), with rainfall ranging from 500-800 mm/year in the most arid regions. The temporal distribution of rainfall is irregular, and droughts are periodic. The lack of water resources is the main obstacle to the development of agriculture, with family and subsistence farming being particularly vulnerable.</p> <p>High temperatures: associated with irregular rainfall, high temperatures affect plant and animal productivity by increasing plant evapotranspiration (resulting in deciduousness and, therefore, a lack of biomass in the driest and hottest periods).</p> <p>Forest fires: Ceará is the fourth state in the Northeast with the highest number of fires in 2022, according to data from the National Institute for Space Research (INPE). According to INPE, the state recorded 311 fires between January and the beginning of September. Fires and forest fires are more frequent in the second half of the year, especially in the last months of the year, due to favorable conditions such as low air and soil humidity, dry vegetation, high temperatures and the intensive use of burning to prepare land for agricultural crops. The spread of fires in this period is enhanced by the cultural habit of clearing the land with fire for agricultural practices and by the favorable weather conditions for fire (dryness and high temperatures).</p> <p>Desertification: Land degradation is the result of adverse soil and climate conditions, aggravated by the adoption of unsustainable agricultural practices such as deforestation, burning and overgrazing (especially by cattle). Ceará has three areas with desertification centers: Irauçuba, Inhamuns and Médio Jaguaribe.</p>	Substantial	Moderate

<p>Mitigations:</p> <p>Mitigations: The Project will support environmentally sustainable agrosilvopastoral practices (agroecology) and help farmers modify their production systems if they use unsustainable practices (e.g., use of fire and overgrazing). The Project will also contribute to increasing forest cover with reforestation practices and the recovery of degraded areas. Component 2 of the Project will support the improvement of water security through the promotion of social technologies for access to water, such as: cisterns for agricultural production, family grey water reuse systems, sanitary modules with treatment, community access to rural water, and community reuse of water for production.</p> <p>The Project will exclude funding for investments involving invasive exotic species and endangered species of flora and fauna, as well as hunting practices for endangered species. In the process of formulating the PDRLs, specific Environmental, Social and Climate Management Plans will be drawn up to manage environmental risks, with a budget allocated for the implementation of restoration activities, the protection of springs and Creole seed banks</p>		
Project Scope	Moderate	Low
Technical Soundness	Moderate	Low
<p>Risk:</p> <p>The following risks have been identified: i) risk of maintaining the technical quality of implementation in a particularly large area, ii) limited institutional capacities to implement some innovative activities, iii) not sufficiently integrating the lessons learned in PPF I.</p>	Moderate	Low
<p>Mitigations:</p> <p>The following mitigating measures will be implemented: i) the intervention will be carried out in a priority area and will not be implemented with the same intensity in all 175 municipalities, ii) the capacity building carried out through Component 3 will be an important contribution of the project, iii) the knowledge management products, the CPR and the fact that part of the SDA team participated in the implementation of PPF I, will be mitigating measures.</p>		
Project Relevance		No risk envisaged - not applicable
There is no risk envisaged.		
Institutional Capacity for Implementation and Sustainability	Substantial	Moderate
Monitoring and Evaluation Arrangements	Moderate	Low
<p>Risk:</p> <p>SDA has experience in monitoring its actions. However, there is a risk of not finding properly trained M&E professionals. The M&E system developed by PPF I will need to be adjusted to meet the new demands of PPF II.</p>	Moderate	Low
<p>Mitigations:</p> <p>In component 3, resources should be allocated to strengthening the capacities of the project's M&E team. In the Management component, the budget should be provided for adjustments to the M&E system.</p>		
Implementation Arrangements	Substantial	Moderate

<p>Risk:</p> <p>The SDA has experience in implementing projects with international organizations, such as the 4th phase of the São José project, financed by the World Bank, and the 1st phase of the Paulo Freire project, financed by IFAD. The main change in the implementation arrangement for the 2nd phase of the PPF consists of defining a role for EMATERCE since it was not involved in the 1st phase. This is a substantial risk since the provision of Technical Assistance is fundamental to making field investments.</p>	Substantial	Moderate
<p>Mitigations:</p> <p>The definition of EMATERCE's role should be aligned with stakeholders in the government and with IFAD, to ensure that everyone agrees with EMATERCE's obligations in PPF II.</p>		
Project Financial Management	Moderate	Moderate
Project External Audit	Moderate	Moderate
<p>Risk:</p> <p>It remains undecided whether external audits will be carried out by state court of auditors as is the case for world bank financed project or by private auditor</p>	Moderate	Moderate
<p>Mitigations:</p> <p>IFAD to insist on use Court of Accounts Ceará based on positive experience shared by Worldbank</p>		
Project Accounting and Financial Reporting	Substantial	Moderate
<p>Risk:</p> <p>i) use of auxiliary spreadsheets for budget monitoring by component category and financier and preparation of quarterly IFR resulting in risk of human error ii) Delays in or incomplete recording of indirect or in kind counterpart funding from SDA iii) Delays or incomplete recording of indirect or in kind counterpart funding from beneficiaries</p>	Substantial	Moderate
<p>Mitigations:</p> <p>i) Adaptation of SDA system to allow for monitoring by component, category and source of funding and IFRs based on data from the SIAFE/CE system as part of Special Covenant in FA; ii) Establish and document in the PIM clear criteria for recording and valuation of government counterpart financing; iii) Establish and document in the PIM the process for recording of counterpart funding from beneficiaries and follow up by IFAD based on IFRS and during supervision missions.</p>		
Project Internal Controls	Low	Low
<p>Risk:</p> <p>Adequate controls in place as confirmed during supervision Paulo Freire I and confirmed by audits , IFAD evaluation during design and Wordbank fiduciary evaluations for same implementing entity</p>	Low	Low
<p>Mitigations:</p> <p>No measures</p>		
Project Funds Flow/Disbursement Arrangements	Substantial	Substantial

<p>Risk:</p> <p>(i) Timing differences AECID financing and IFAD loan which could affect the availability of funds and delay project implementation;</p> <p>(ii) Delays in signing agreements with entities providing technical support (ATER) delaying implementation;</p> <p>(iii) Farming Families or rural farming organizations organizations, which will manage the resources and implement the Local Rural Development Plans (PDRL), may have weak capacity around resource management and may have challenges opening bank accounts and report on the use of funds, which could delay disbursements, implementation and reporting.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>i) Alignment of dates entry into force financing agreements AECID and IFAD through close cooperation during negotiations and approval processes;</p> <p>ii) ToR for selection of third sector entities entities supporting Local Rural Development Plans (PDRL) with No IFAD as a condition for first disbursement.</p>		
Project Budgeting	Moderate	Moderate
<p>Risk:</p> <p>Insufficient fiscal space and/or or delays in the disbursement of gvt funding affecting project implementation.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>(i) SDA will ensure timely submission of request for fiscal space and counterpart funds to ensure sufficient and timely resources for Project implementation;</p> <p>(ii) IFAD Team will ensure that SEPLAN is firmly committed to ensuring the allocation of sufficient counterpart financial resources for project implementation;</p> <p>(iii) Monitoring by IFAD of the availability of counterpart funds at least every six months</p>		
Project Organization and Staffing	Moderate	Low
<p>Risk:</p> <p>i) While the PMU has not been set up SDA does not have enough staff to absorb the demands to manage the finances of the projects which might delay start-up;</p> <p>(ii) Not enough staff assigned to support administrative aspects of Local Rural Development Plans (PDRL) might affect quality of and delay reporting on execution of and related counterpart funding .</p>	Moderate	Low
<p>Mitigations:</p> <p>(i) Hiring of Finance Manager within PMU dedicated to the project as a condition for first disbursement.</p> <p>(ii) Include in Terms of Reference for third sector entities (ATER) which requires NO from IFAD as a condition for first disbursement, clear responsibilities, and the requirement to assign sufficient staff with the right profile to accompany administrative aspects of Local Rural Development Plans (PDRL).</p> <p>(iii) During start-up phase SDA to provide training to staff selected third sector entities for technical support (ATER) on administrative processes Local Rural Development Plans (PDRL) as documented in the PIM.</p>		
Project Procurement	Moderate	Moderate
A.1 Legal, Regulatory and Policy Framework	Moderate	Moderate

<p>Risk:</p> <ul style="list-style-type: none"> - This limitation of methods can lead to inefficient procurement if it does not take into account the different Priority Elements that may be involved in determining the need for procurement (quality, time, etc); - Absence of a consolidated instrument, in the format of a manual, that contains detailed information about the procedures and content of the documents required for the contracting process; - National law does not contain express prohibitions regarding the disclosure of information during the evaluation phase; - National Law does not provide for an autonomous review body for procurement activities; - Lack of standard contractual conditions; 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> - Development training and capacity building program on the procurement procedures for the entire procurement cycle; - Define in the PIM clear rules on: a) the content of bidding documents; b) evaluation stage; c) main management and monitoring documents; d) document storage and their respective deadlines; e) security protocols; - Consider the full use or adoption of international standards with their manuals and standardized instruments; - Intensify planning and preparation of consultancy procurement activities, taking into account the complexity of the object; - Evaluate the possibility of using international methods defined in clear policies and detailed in specific manuals; - Adopt a review committee and/or alternative conflict resolution methods; - Adopt a regulation proposed by an official body as a reference for good procedural practices; - Prepare standard bidding documents or use existing models that have been duly adapted; - Drawn up general clauses for the main types of contracts celebrated by the Project. IFAD GCC may be adopted with appropriate adaptations; - Standard contractual conditions should include provisions on Alternative Dispute Resolution (ADR), specifically through arbitration, in alignment with international standards; - Develop an acquisition procedures manual aligned with national laws and international good practices; - Capacity building on use of sustainable contracting criteria in the Project's procurement cycle; - Adhering to IFAD SECAP and IFAD policies. 		
<p>A.2 Institutional Framework and Management Capacity</p>	Low	Low
<p>Risk:</p> <ul style="list-style-type: none"> - Low priority for planning.; - Absence of extratified statistical information on procurement can make it difficult to evaluate policies and identify the efficiency of the system. 	Low	Low
<p>Mitigations:</p> <ul style="list-style-type: none"> - Facilitate capacity building on strategic planning; - Adopt procurement management systems that allow evaluation through statistical information, as well as market planning and analysis 		
<p>A.3 Accountability, Integrity and Transparency of the Public Procurement System</p>	Low	Low
<p>Risk:</p> <ul style="list-style-type: none"> - Fragility in the integration between procurement planning and technical areas; - Use of contracts templates with General Clauses is still not frequently used; - The rules to ensure the confidentiality of the evaluation procedure are not present in a clear way and a single manual; - Punctual delays in the execution of contracts. 	Low	Low

<p>Mitigations:</p> <ul style="list-style-type: none"> - Internal flows must promote the integration and participation of the procurement area in the planning cycle of Project activities; - Training on Project and IFAD's policies; - Adopt standard bid documents whenever possible; - Use of contractual clauses containing the general conditions of the contract is encouraged. (IFAD standard documents as well as their CGC can be adapted for use by the project); - The evaluation rules must be clearly defined in the Project implementation manual; - Use of IFAD's Contract Monitoring Tool (CMT) to gather information about the contracts implementation. 		
<p>A.4 Public Procurement Operations and Market Practices.</p>	Substantial	Substantial
<p>Risk:</p> <ul style="list-style-type: none"> - The sharing of teams for technical assistance in different decision-making bodies; - The inclusion of standard contract clauses that provide for prohibited practices is not mandatory; - Low perception about the application of laws on fraud, corruption and other prohibited practices with the application of penalties declared; - Lack of information about special integrity training programs offered to procurement teams; - Stakeholders are not actively participating in promoting good practices and actions for integrity and ethics; - lack of standardized forms for archiving conflict of interest information; 	Substantial	Substantial
<p>Mitigations:</p> <ul style="list-style-type: none"> - Define an independent appeals body or entity; - Clearly and expressly define in its compliance/integrity documents and policies what are considered prohibited practices and how to avoid them; - Development of Internal communication plans and training programs on the Project's fundamental policies and values; - Include clauses and policies that address prohibited practices in the main contractual documents; - Implement integrity and anti-corruption training as part of the project; - Establish clear documents on ethics and integrity as a requirement in the project; - Include IFAD's mandatory policies in all contractual documents, including for subcontractors; - Conduct comprehensive due diligence before formalizing any contracts; - Include evaluation criteria that recognize the adoption and appreciation of good practices and innovative practices by bidders; - Adopt clauses and policies that address prohibited practices in the main contractual documents; - Adopt forms of declaration on conflict of interest and property information and keep them filed in the procurement processes (IFAD standard forms can be adapted). 		
<p>B.1 Assessment of Project Complexity</p>	Moderate	Moderate
<p>Risk:</p> <p>The project has a low complexity in terms of Procurement methods used with Procurement centralized in the PMU and with experienced teams. SECAP is moderate. Governance is strong and active.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>The Procurement Plan will have little variation in procurement methods and the types of procurements are not complex. The PIU team has already undergone several IFAD training courses and has experience with the CMT, IFAD's contractual monitoring system, in addition to having participated in training on OPEN. The training will be repeated and made available to new members.</p>		
<p>B.2 Assessment of Implementing Agency Capacity</p>	Low	Low

<p>Risk:</p> <p>The risk presented are mostly low, with some moderate ones. PMU and other technical teams bring the experience gained in executing the previous phase of the project. The market is known and can meet the demands of the new phase of the project. The team has already been trained by IFAD.</p>	Low	Low
<p>Mitigations:</p> <p>With continuous monitoring and the application of mitigating measures, there is a great possibility of success in the execution of the new phase of the project.</p>		
<p>Project Procurement Overall</p>	Moderate	Moderate
<p>Risk:</p> <p>Country risk does not directly influence the activities of this project, and Brazil has good prospects for growth and effective control. The state of Ceará has the capacity to implement the project and manage procurement activities of projects financed with external resources thanks to an experienced procurement team at PMU. In addition, the project will have simple procurement activities carried out by rural farmers spread across numerous municipalities, it is evaluated that the risk is moderate for the whole project.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Implementing mitigation measures will reduce risk, including systematic tracking of beneficiaries and their purchases.</p>		
<p>Environment, Social and Climate Impact</p>	Substantial	Low
<p>Vulnerability of target populations and ecosystems to climate variability and hazards</p>	Substantial	Moderate
<p>Risk:</p> <p>Risk(s): Climate models and scenarios point to a significant increase in temperature (up to 1 degree C before 2040) and frequency of extreme events, such as droughts and floods. They also predict a drop in average rainfall, but not a significant one (around 2%). Family farming is already extremely vulnerable to climate variability given the water restrictions and high temperatures in the state. According to the State Program to Combat Desertification, the implications of climate change on the rural population in the semiarid region of Ceará can be summarized as follows: loss of employment, migration, loss of access to land, loss of production, livestock, and income. Services to help the population already exist, such as funding for cisterns, agricultural insurance, and water trucks. However, their reach is limited, among other reasons, by land insecurity and the incipiency of environmental regularization.</p>	Substantial	Moderate
<p>Mitigations:</p> <p>Mitigations: The aim of this Project is to increase the climate resilience of target populations and ecosystems in the face of climate variability and hazards. It will promote the adoption of more diverse and resilient agroecological systems, using animal and plant species that are better adapted to environmental conditions and their climate change trends. The Project will promote water security for its beneficiaries and encourage access to and storage of water with cisterns for agricultural production, family water reuse, sanitary modules with treatment, etc. The Project will also finance reforestation activities, the recovery of degraded areas and the protection of springs.</p>		
<p>Greenhouse Gas Emissions</p>	Low	Low

<p>Risk:</p> <p>Risk(s): The calculation of GHG emissions is still being worked out while this document is being written, but it is estimated that the Project will have negative emissions due to: i) the increase in biomass and soil carbon promoted in agroecological and agroforestry systems (compared to monocultures), ii) reforestation and forest restoration activities, iii) greater access to water for production, and iv) the reduction in burning. It is estimated that the Project will sequester carbon.</p>	Low	Low
<p>Mitigations:</p> <p>Mitigations: The Project will support environmentally sustainable practices and help farmers modify their production systems if they have unsustainable practices (for example overgrazing or slash and burn native vegetation). It will also contribute to increasing forest cover with reforestation practices, the implementation of agroforestry systems, the recovery of degraded areas, access to production water and the introduction of energy-efficient stoves. It will also finance access to renewable energies, such as solar panels.</p>		
<p><i>Physical and Economic Resettlement</i></p>	<i>Low</i>	<i>Low</i>
<p>Risk:</p> <p>Risk(s): There is no risk that the Project's interventions will cause the physical resettlement of families or significant adverse economic impacts, especially for marginalized groups.</p>	Low	Low
<p>Mitigations:</p> <p>Mitigations: The Project has a solid targeting strategy and will promote positive social, physical, cultural, and economic impacts, especially for marginalized groups.</p>		
<p><i>Community health, safety and security</i></p>	<i>Low</i>	<i>Low</i>
<p>Risk:</p> <p>Risk(s): There is no risk that the project will have adverse effects on the health of any group or population. On the contrary, the Project aims to respond to health problems linked to malnutrition. Although recurrent gender-based violence is present in the project area, project activities will promote gender equity, women empowerment, and have positive effects on the physical, mental, and social well-being of individuals or groups, thereby ensuring that the project does not lead to gender-based violence.</p>	Low	Low
<p>Mitigations:</p> <p>Mitigations: The Project will contribute to improving the health and diet of rural populations, promoting agroecological practices (which removes the effects of inappropriate use of pesticides on health), supporting access to water, improving food and nutrition security, and promoting appropriate nutritional practices for the health of mothers and children in particular.</p> <p>In accordance with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), the Project will ensure that adequate safeguard measures are in place for a safe and harassment-free working environment, including sexual harassment and free from sexual exploitation and abuse in its activities and operations. Any complaint of sexual harassment, exploitation or abuse received through the Project's complaint procedure will be referred immediately to the IFAD Ethics Office for further action.</p>		
<p><i>Labour and Working Conditions</i></p>	<i>Moderate</i>	<i>Low</i>

<p>Risk:</p> <p>Risk(s): Employment conditions in impoverished rural areas of Brazil, as is the case in the Project's area of intervention, may not be fully compliant with national labor regulations. This can lead to risks of payment below the minimum wage, child labor, unsafe conditions, or excessive hours, among others.</p>	Moderate	Low
<p>Mitigations:</p> <p>Mitigations: 1) All contracts with contractors, suppliers and third parties to be financed with IFAD funds will include provisions prohibiting child labor and promoting decent working conditions. 2) The PMU will establish a mechanism to supervise and follow up on PPF 2 actions with beneficiaries, considering working condition issues. 3) IFAD's supervision and support missions will also monitor and follow up on the issue of working conditions and labor practices. 4) Through the Project's complaints and grievances mechanism, stakeholders and society in general will be able to submit anonymous complaints regarding abusive labor practices (e.g., forced or child labor), cases of gender-based violence, discriminatory working conditions, and unsafe/unsanitary working conditions, which will be addressed and resolved as indicated in the mechanism. Therefore, the Project will potentially lead to an improvement in labor and working conditions.</p>		
<p>Indigenous People</p>	Moderate	Low
<p>Risk:</p> <p>Risk(s): The risk that the Project may affect the collective rights of indigenous peoples and that there is no effective participation of indigenous peoples in Project decisions that affect them.</p>	Moderate	Low
<p>Mitigations:</p> <p>Mitigations: i) The Project's eligibility/exclusion criteria prohibit the acquisition or restriction of land use in areas belonging to indigenous and traditional communities. ii) Stakeholder Engagement Plan have been prepared and will include a Public Disclosure and Consultation Plan, including the participation of quilombola, indigenous and other traditional communities, informing them about the Project and the location of the proposed interventions in the communities, reporting on the activities and location of any intervention in the area bordering the demarcated Territory. iii) The SEP also includes a Social Communication and Community Participation program that respects and includes forms of documentation and means of communication that are accessible and appropriate to the cultural specificities of the indigenous peoples and traditional communities in the Project area. iv) The Project's methodology is participatory and demand-driven, with peasant, indigenous and traditional communities presenting their development plans and co-creating the Project's activities in a process of self-determined development, in accordance with IFAD's Policy on Engagement with Indigenous Peoples (2022). v) A Free, Prior and Informed Consent Plan (FPIC Plan) and a Plan Framework for Indigenous Peoples were developed. vi) The Project strengthens the protection of indigenous peoples' cultural and physical resources, promotes their economic development through productive investments, values traditional agricultural systems, recognizes and rescues indigenous food culture</p>		
<p>Cultural Heritage</p>	Low	Low
<p>Risk:</p> <p>Risk(s): The Project will not cause any degradation of cultural or physical resources, including threats to or loss of resources of historical, religious, or cultural importance. The Project will only work on land that is already being used for agriculture.</p>	Low	Low
<p>Mitigations:</p> <p>The Project will ensure that cultural considerations are made during the implementation of the proposed activities.</p>		
<p>Resource Efficiency and Pollution Prevention</p>	Moderate	Moderate

<p>Risk:</p> <p>Risk(s):</p> <ol style="list-style-type: none"> 1) The project could support small agricultural processing facilities that produce effluents. 2) 60-80% of the energy used for cooking in the Project area comes from firewood, but this percentage will tend to fall with the installation of efficient stoves and biodigesters. 3) Component 2 can support groundwater extraction on a small scale, but not significantly. 4) Rural producers may independently of the project, use of soluble fertilizers and pesticides as a way of guaranteeing their production and income, with negative impacts on the atmosphere, soil, and biodiversity. 5) The project will also support small-scale livestock production, so there may be an increase in herd size. 	Moderate	Moderate
<p>Mitigations:</p> <p>Mitigations:</p> <ol style="list-style-type: none"> 1) The agricultural product processing facilities will comply with current Brazilian environmental licensing and plant and animal health regulations, which require the proper treatment of these effluents and do not allow them to be discharged into the environment. 2) The Project will support the reforestation and restoration of forest areas, with a positive impact on the supply of firewood in the medium and long term. The promotion of eco-efficient stoves and biodigesters will tend to reduce the demand for firewood. 3) Water extraction and well drilling is regulated by the government of Ceará, through its Secretariat of Water Resources, which assesses the availability of water before granting authorization for new abstractions. 4) The Project will promote Integrated Pest Management and provide training for ATER teams on the proper use of authorized pesticides according to the WHO classification (therefore, the use of Class IA and IB substances or Class II product formulas is prohibited). The Project will focus on green fertilizers and will not encourage or finance the purchase of pesticides, but independent purchases by farmers may occur. 5) Agroecological practices require animal production to be in line with the carrying capacity of the environment, including pastures. The Project will support the breeding of small animals (mainly goats and sheep) and the association with ecological practices for the production of pastures and fodder (e.g., silvopastoral systems) with local species. 		
<i>Biodiversity Conservation</i>	<i>Moderate</i>	<i>Low</i>
<p>Risk:</p> <p>The project will not lead to significant conversion or degradation of biodiversity and natural habitats. Risk(s): The Project will not lead to conversion or degradation of biodiversity and natural habitats. The agroecological practices to be supported by the Project include integrated pest management practices that are based, among other things, on the spatial heterogeneity of agroecosystems as a way of promoting predator-prey balance and thus avoiding outbreaks of species that can result in agricultural losses. Therefore, the Project's impact on biodiversity and natural habitats is considered positive.</p> <p>The recovery of degraded areas planned in the Project could result in an increase in foraging areas for various species, thus favoring more encounters between wild animals and humans. However, such encounters rarely result in conflicts.</p> <p>Invasive plant and animal species are already a problem in the Caatinga and some of them have been widely adopted by farmers in their production systems as sources of energy, fodder, honey, and protein. These include: <i>Prosopis juliflora</i> (Algaroba), <i>Apis mellifera</i> ("Europe" bee) and <i>Oreochromys spp</i> (Tilapia).</p>	Moderate	Low

<p>Mitigations:</p> <p>Mitigations: Measures to address the risk of invasive species will be included in the Project's safeguard instruments, procurement plans (negative list) and capacity building. The Project will not finance the introduction of exotic species with invasive potential and will not purchase GMO crops or support their introduction. The purchase of seeds and seedlings will preferably be made from local sources, prioritizing native and creole species.</p> <p>The Project will promote the strengthening of production chains with local socio-biodiversity species for the production of fruit, fodder, honey, oils, extracts, etc. Some of the species already identified are: Xique xique, Mandacaru, Juazeiro, Umbu-cajá, Faveleira, Marmeleiro, Jucá, Jurema-preta, Oiticica, Aroeira, Sabiá, Feijão bravo, Catingueira, Emburana and Jandaíra (bee).</p>		
<p>Stakeholders</p>	<p>Moderate</p>	<p>Low</p>
<p>Stakeholder Grievances</p>	<p>Moderate</p>	<p>Low</p>
<p>Risk:</p> <p>The risk that the Project has ineffective grievance/complaint redress processes (including allegations of non-compliance with IFAD's E, S, C standards, fraud, corruption or SEA), leading to unaddressed stakeholder grievances that may jeopardize the Project implementation and the achievement of the Project's development objectives.</p>	<p>Moderate</p>	<p>Low</p>
<p>Mitigations:</p> <p>The project will raise awareness among stakeholders about the complaints and grievance mechanisms available, including those of IFAD. It will also include this information as part of IFAD missions, as well as part of the training of technical assistance teams that will work with beneficiaries.</p>		
<p>Stakeholder Engagement/Coordination</p>	<p>Low</p>	<p>Low</p>
<p>Risk:</p> <p>There is a low risk that the key stakeholders invited to take part in the project will show little interest in or commitment to the project's objectives and activities. The engagement and active involvement of stakeholders are essential to the project's success.</p>	<p>Low</p>	<p>Low</p>
<p>Mitigations:</p> <p>The SDA will coordinate the participation of stakeholders during the Project design and implementation. At the community and family level, the Project will implement a participatory process in defining activities that meet the needs and aspirations of the beneficiaries. The Project will also establish continuous communication, awareness-raising, and coordination with the various partners at all levels (local, regional, and state), starting at the Project design stage, and will foster visibility activities to publicize and clarify questions regarding the Project's activities and results, both for the target groups and for the partners involved in implementation. It is essential to promote the awareness and participation of local communities, farmers, and other key players to ensure adherence and commitment to the proposed activities.</p>		

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 10: Exit Strategy

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Latin America and the Caribbean
Programme Management Department

ANNEX 10: EXIT STRATEGY

Ensuring the sustainability of the project investments beyond the duration of the project is paramount. This has been a key consideration from the project design stage. A sustainability strategy plan will be elaborated from the third year of implementation through an iterative process, which will be monitored during IFAD supervision missions, and which may be accompanied by AECID.

The PPF II exit strategy will seek to find pathways for scaling well-performing project activities, leading to greater impacts after the project ends.

The drafting of the plan will follow the guidelines in IFAD's reference documents, in particular the Operational Framework for Scaling Results. In the following, several elements are highlighted that will contribute to the long-term sustainability of the investments and activities implemented during the Project.

The perfect alignment of the Project with the priorities of the SDA and the Government of Ceará in general will create favorable conditions for strong ownership of its activities, both during and after implementation. Several factors will contribute to this:

At State and government level:

- (i) Collaboration with the bodies linked to the SDA, such as EMATERCE, IDACE, the different sectoral coordinating bodies, and the São José IV Project, will be a strategic factor in integrating the beneficiary families and their organizations into the SDA system;
- (ii) The integration of PPF II activities in Micro-Regional Forums and in the Municipal Commissions for Life in the Semiarid will open up strategic channels to help maintain the activities beyond the end of the Project. The forum e municipal commissions will also be strategic to disseminate and seek to scale up successful innovations and practices;
- (iii) Strengthening the capacities of TA organizations in terms of new approaches and the use of new tools related to PPF II will be key to ensure good continuity of the project's actions. It will also be a way for organizations to scale up the good practices acquired in PPF II to other projects.

At the community and family level:

- (i) The training and support activities for access to various public policies should create favorable conditions for the beneficiaries, thus allowing them greater autonomy and capacities to expand and maintain the activities started with PPF II;
- (ii) The Project aims to strengthen the capacities of the beneficiary population and their community organizations through ATER, so that they can access and implement other resilient projects and productive activities;
- (iii) Improving capacities and knowledge in nutrition, together with participatory methods of social, ethnic-racial, gender and youth inclusion, will contribute to achieving better ownership and social inclusion.

Looking at the **Environmental Dimension** of the sustainability of project activities, it must be highlighted, that many project actives in itself propose approaches that aim to make production systems and consequently, the livelihoods of family farmers mores sustainable and resilient. These include:

- (i) Concerning production systems are, PPF II will promote an agroecological transition to diversify and intensify production, integrating a specific approach to environmental issues. This is expected to lead to greater resilience to climate change, as well as greater capacity to maintain productive practices with the potential to increasing and diversifying income;
- (ii) The construction of PDRLs with a specific environmental focus and with resources earmarked for this purpose should make it possible to carry out collective actions around environmental problems in the rural territory, thus creating mobilization and concrete actions on the part of the beneficiary population;
- (iii) Investments in sanitation (access to water, sewage disposal and waste recycling pilots) will guarantee year-round access to these resources, allowing the consumption of water of improved quality and quantity, both for human use and for agricultural production.

Important elements in the **Economic dimension** contributing to the project's sustainability are:

- (i) Activities to strengthen the capacities of farmers' organizations and their infrastructures will be key to improving access to markets on a more continuous basis, allowing for a better valuation of products and an improvement in family incomes. Beneficiaries will receive TA to improve access to the market, a key factor in the sustainability of the investments made. Although all types of market opportunities will be covered, the institutional market such as the national school feeding program and the food acquisition program are very accessible to small producers at the local level;
- (ii) The introduction of agroecological practices should help to reduce the use of commercial inputs and consequently production costs. Added to improved mechanization, it is expected to significantly increase the economic sustainability of family systems;
- (iii) Technicians from the project and from ATER organizations will be trained to use a tool for preparing PDRLs and PNs that uses profitability calculation principles. Given that all PDRLs and PNs will be drawn up in this way, the project will help to strengthen these new capacities to generalize the approach based on these principles;
- (iv) Social Technologies for energy generation will guarantee a reduction and efficient use of natural resources in the long term, as well as monetary savings for families.

Finally, the elements of the **project approach and strategy dimension** contributing to the project sustainability are:

- (i) Strengthening the knowledge and expertise of public and private in-person and remote ATER technical teams working in the state will be a strategic contribution to continuing the activities implemented by PPF II;

- (ii) Encouraging social participation at all stages of the Project, based on the use of specific methodologies and tools for women, young people and the PCT, should strengthen the ownership and sustainability of the Project's activities;
- (iii) The methodology for identifying, elaborating and implementing the PDRLs and BPs including procurement and accountability processes, based on participatory processes and support by ATER, should allow for strong ownership of the activities and organizational dynamics promoted by the Project, a key factor for sustainability;
- (iv) The various innovations that the Project will help to develop will aim towards providing adapted solutions and strengthening the resilience of productive activities and families, and their impact will go beyond the Project area, with medium- and long-term repercussions;
- (v) The work of KM and SSTC will constitute a key methodological reference for continuing and expanding the Project's activities. This will be an opportunity to ensure that the outcomes of the project, and successful innovations and approaches will also be shared with the government (at both state and federal level), with other IFAD projects, and with relevant stakeholders to facilitate its uptake, support and upgrade to scale;
- (vi) The overall sustainability of the interventions will depend on increasing the production of healthy food, diversification in production, nutrition, and income (by reducing costs and improving prices and sales conditions), greater resilience to climate changes and shocks.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex 11: Mainstreaming themes – Eligibility criteria checklist

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Mainstreaming themes – Eligibility criteria checklist						
	<input checked="" type="checkbox"/> Be gender transformative	<input checked="" type="checkbox"/> Be youth sensitive	<input checked="" type="checkbox"/> Be nutrition sensitive	<input type="checkbox"/> Prioritize persons with disabilities	<input checked="" type="checkbox"/> Prioritize indigenous peoples	<input checked="" type="checkbox"/> Include climate finance <input checked="" type="checkbox"/> Build adaptive capacity
Situation analysis	<input checked="" type="checkbox"/> National gender policies, strategies and actors <input checked="" type="checkbox"/> Gender roles and exclusion/discrimination <input checked="" type="checkbox"/> Key livelihood problems and opportunities, by gender	<input checked="" type="checkbox"/> National youth policies, strategies and actors <input checked="" type="checkbox"/> Main youth groups <input checked="" type="checkbox"/> Challenges and opportunities by youth group	<input checked="" type="checkbox"/> National nutrition policies, strategies and actors <input checked="" type="checkbox"/> Key nutrition problems and underlying causes, by group <input checked="" type="checkbox"/> Nutritionally vulnerable beneficiaries, by group	<input type="checkbox"/> National policies, strategies and actors <input type="checkbox"/> Main groupings among PwDs <input type="checkbox"/> Context-based barriers and opportunities for PwDs	<input checked="" type="checkbox"/> International standards, national policies, strategies and key IPs' organizations <input checked="" type="checkbox"/> Main IPs communities, demographic, social, cultural and political characteristics <input checked="" type="checkbox"/> Important livelihoods constraints and opportunities for IPs and their cultural heritage	
Theory of change	<input checked="" type="checkbox"/> Gender policy objectives (empowerment, voice, workload) <input checked="" type="checkbox"/> Gender transformative pathways <input checked="" type="checkbox"/> Policy engagement on GEWE	<input checked="" type="checkbox"/> Pathways to youth socioeconomic empowerment <input checked="" type="checkbox"/> Youth employment included in project objectives/activities	<input checked="" type="checkbox"/> Nutrition pathways <input checked="" type="checkbox"/> Causal linkage between problems, outcomes and impacts	<input type="checkbox"/> Pathways to PwDs' socioeconomic empowerment using a twin-track approach	<input checked="" type="checkbox"/> Pathways to IPs' socioeconomic empowerment	
Logframe indicators	<input checked="" type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input checked="" type="checkbox"/> Women are > 40% of outreach beneficiaries <input checked="" type="checkbox"/> IFAD empowerment index (IE.2.1)	<input checked="" type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input checked="" type="checkbox"/> Persons with new jobs/employment opportunities (CI 2.2.1)	<input checked="" type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input checked="" type="checkbox"/> Targeted support to improve nutrition (CI 1.1.8) Outcome level CIs <input checked="" type="checkbox"/> CI 1.2.8 MDDW <input type="checkbox"/> CI 1.2.9 KAP	<input type="checkbox"/> Outreach disaggregated by sex, youth, disability and IPs (if appropriate)	<input checked="" type="checkbox"/> Outreach indicator disaggregated by sex, youth and IPs <input checked="" type="checkbox"/> IPs are > 30% of target beneficiaries	
Human and financial resources	<input checked="" type="checkbox"/> Staff with gender TORs <input checked="" type="checkbox"/> Funds for gender activities <input checked="" type="checkbox"/> Funds for IFAD empowerment index in M&E budget	<input checked="" type="checkbox"/> Staff with youth TORs <input checked="" type="checkbox"/> Funds for youth activities	<input checked="" type="checkbox"/> Staff or partner with nutrition TORs <input checked="" type="checkbox"/> Funds for nutrition activities	<input type="checkbox"/> Staff with disability inclusion-specific TORs <input type="checkbox"/> Funds for disability inclusion-related activities (including accessibility)	<input checked="" type="checkbox"/> Staff with IPs-specific TORs <input checked="" type="checkbox"/> Funds for IPs related activities, including FPIC	IFAD Adaptation Finance \$4,250,000 IFAD Mitigation Finance \$4,250,000 Total IFAD Climate-focused Finance \$8,500,000

ECG Remarks	Gender Nutrition Youth Persons with Disabilities Indigenous Peoples <input type="checkbox"/> No social inclusion themes
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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: A Indigenous Peoples Planning Framework

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Federal Republic of Brazil

State of Ceará

**Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural
Poverty and Extreme Poverty**

(Paulo Freire – PPF II)

ANNEX A

INDIGENOUS PEOPLES PLANNING FRAMEWORK

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Table 1: INDIGENOUS LANDS, ETHNIC GROUPS PER STATE IN THE NEB (Source MPF)

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Table 2: INDIGENOUS PEOPLES ASSOCIATIONS IN THE PROJECT AREA (Source MPF)

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INTRODUCTION

1. This Indigenous People Planning Framework (IPPF) was prepared for the Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty Project (Paulo Freire – PPF II), the Project henceforth. The IPPF is part of the Project's Environment and Social Management Framework (ESMF) and related environmental and social safeguards documents. This IPPF is to be applied to all Project activities involving indigenous peoples. The Secretariat for Agrarian Development (SDA) of the state of Ceará will implement the Project. The social and environmental safeguards specialist at the Project's Management Unit (PMU) of SDA will support the implementation of the Safeguards and shall oversee this IPPF implementation, supervision, and reporting.

PROJECT OVERVIEW

2. The goal of Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty Project (Paulo Freire – PPF II) is to reduce rural poverty and food and nutrition insecurity in family farming. Its Development Objective is to increase the sustainability of production systems and the resilience of family farmers. The Project will also address gender inequalities and social exclusion and strive to empower women, youth, traditional peoples and communities (PCTs), and the LGBTQIAP+ community. Specific activities to address malnutrition issues will also be part of the Project.

3. The PPF II is structured into three components: 1) Sustainable rural development; 2) Access to water, sanitation, and social technologies; and 3) Knowledge management and cooperation for adaptation to climate change (INOVA CLIMA). In addition to these, there is a section for Project Management, which includes Monitoring and Evaluation (M&E). Below there is a brief overview of the components and sub-components planned for the Project¹.

4. **Component 1: Rural development with environmental sustainability based on agroecology.** The aim is to implement investments for the development, diversification, and adaptation of family production capacity, with actions carried out to promote and encourage the adoption of agroecological practices and the conservation and preservation of natural resources. It also aims to improve agricultural product processing units' structure and capacities to boost marketing (cooperatives and others). It will also support mainstreaming activities in gender, youth, Traditional Peoples and Communities (PCTs), and nutrition. This component is subdivided into three sub-components:

- **Sub 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty:** Drawing up and implementing Local Rural Development Plans (PDRL), for family and/or collective use in groups of up to 4 neighboring communities, containing financial resources for physical investments (production, inputs, machinery, etc.), as well as the provision of technical assistance for two years, to support all capacity-building, social inclusion and technical support activities related to designing, implementing and reporting on the PDRL. The subcomponent will carry out specific training actions through workshops on the modalities and conditions of access to public policies for family farmers. In addition to these actions, the subcomponent will also finance the land and environmental regularization of families in situations of greater vulnerability;

¹ For more details, refer to the Project Implementation Manual (PIM).

- **Sub 1.2. Strengthening the Marketing and Processing of Family Farming Products:** Strengthening processing units to add value to family farming products through the implementation of business plans (PN), promoting better marketing. Investments will be made in adapting/refurbishing physical structures and acquiring machinery for two different types of units: i) medium/large processing units and ii) small units. In both cases, Specialized Technical Consultancy (CTE) will be provided to strengthen management capacities (financial, administrative, and social), marketing and to improve the production and marketing practices of the enterprises;
- **1.3. Gender, Youth, and Nutrition:** This sub-component will aim to promote the empowerment of women and young people, as well as improve the nutrition of beneficiary families. The activities in this subcomponent will work with three of the Project's cross-cutting themes, strengthening and supporting the mainstreaming of gender, youth, and nutrition issues in all the Project's components. Women's empowerment activities include gender training for beneficiary communities, the implementation and monitoring of the agroecological notebook methodology and cirandas activities for children, which will allow beneficiary women to participate more in the Project's activities. Activities aimed at young people include the planning of youth festivals and caravans, the Young Communicators program, and the training of young leaders, among others. Nutrition activities have focused on exchanges and training, particularly through the renewal of the partnership with the Social School of Gastronomy. This will enable the transmission of knowledge about culinary practices and gastronomic culture and will respond to the technical assistance needs of families, women, young people, and traditional peoples and communities in terms of promoting their products, in particular Underutilized and Neglected Species (NUS). The training courses will also include maternal and child health and reproductive health modules.

5. **Component 2: Access to water, sanitation, and social technologies.** This component aims to invest in water for domestic use and agricultural production, household sewage, and renewable energy. This will allow it to be maintained over time and raise awareness of how to improve good practices in the use of water for domestic purposes, hygiene, and sanitation among the population to have a greater impact on nutritional security and the community's health. Small infrastructures for accessing and storing water for agricultural production will be carried out through this component. Whether for community or family use, the investments will guarantee access to water of better regularity and quality and reduce the contamination of soil and water with waste produced in family units. Practices and technologies for the rational use of water will be systematically introduced to adapt to climate change. To help build innovative solutions, the component will finance the dissemination of sustainable innovations developed by local microentrepreneurs and public agencies. This component is subdivided into two sub-components:

- **Sub 2.1. Rural Community Basic Sanitation:** In this subcomponent, rural basic sanitation will be planned and implemented at the community level to improve the environment and the quality of life of a group of families, considering collective solutions for access to water and sanitary sewage, reuse of gray water, as well as providing adequate disposal and reuse of a portion of the waste generated by these communities.
- **Sub 2.2. Social Technology for Access to Water and Support for Production:** This subcomponent aims to implement social technologies for capturing rainwater for human consumption and production (production cisterns, family reuse systems, trench

dams, small reservoirs, etc.), as well as the implementation of infrastructure for sanitary solutions (such as sanitary modules), adhering to the sustainable use and preservation of natural resources and energy generation (biodigesters and eco-efficient stoves, for example). These technologies and innovations are sustainable alternatives that guarantee food and nutritional security for families, as well as being solutions with a high social impact and low implementation costs. The subcomponent will provide resources to implement the innovative sustainable solutions generated by subcomponent 3.3.

6. **Component 3: Knowledge Management and Cooperation for Adaptation to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA).** This component will be grant-funded (100% AECID grant resources) and will aim to promote capacity building among small producers and TA teams, foster environmental and nutrition education to ensure food and nutrition security in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semiarid environment. Replicable pilot projects will be developed, and exchanges will be organized, following the model of Triangular and South-South Cooperation (CTSS). It also aims to support the PMU to strengthen the state's institutional capacity to implement PPF II and, in particular, the actions financed by Component 3. This component is subdivided into five sub-components:

- **Sub 3.1. Capacity building of family farmers and rural extension teams (Technical Assistance, TA):** to acquire greater knowledge in areas related to climate change resilient agriculture. This includes a focus on issues such as climate change, desertification, nutrition, biodiversity, and food security, to influence public policies;
- **Sub 3.2. Promoting environmental and climate education with a gender focus in rural schools:** To this end, training will be provided for young people and teachers in areas related to climate change resilient agriculture based on agroecology, the sustainable management of natural resources such as water and biodiversity, as well as the production of seedlings and reforestation; also promoting nutritional education and food security for pupils, teachers, and school cooks through the valorization of local agrobiodiversity.
- **Sub 3.3. Promotion of research on technology and implementation of pilot projects:** Affordable and viable pilot projects, with the potential to become rural micro-enterprises and large-scale replication. These projects will seek to use renewable energies, reduce the use of firewood and biomass, as well as improve the quality of water for human consumption, among other actions;
- **Sub 3.4. Knowledge Management and South-South and Triangular Cooperation (SSTC):** This will focus on systematizing, documenting, and disseminating the knowledge, experiences, innovations, technologies, and good practices developed and tested by the Project, to make them accessible to a wider audience. In addition, studies, research, and exchanges will be carried out to generate new knowledge and stimulate cooperation in key areas of the Project by promoting specific South-South and Triangular cooperation actions with other countries in the region, the African Sahel, and African Lusophone countries.
- **Sub 3.5. Strengthening the PMU for implement and monitore activities:** This aims to strengthen the capacity of the PPF II PMU to improve the implementation and monitoring of activities financed by Spanish Cooperation. The functions envisaged include: i) Advising the PMU on the design and planning of activities, as well as the preparation of the procurement plan; ii) Supporting the PMU in monitoring and

following up on project activities and, in particular, the components related to knowledge management and the SSTC; iii) Provide technical advice to the SDA on the design of innovation policies and programs in the agricultural sector based on Spain's experience; iv) Support for the transfer of knowledge and good practices from Spain in the field of sustainable agriculture and water management to the state of Ceará; and v) Coordinate with the Spanish Cooperation Office for Brazil, based in Montevideo, of the Triangular Cooperation actions carried out under the Project.

7. Project Management, Monitoring, and Evaluation (M&E), Knowledge Management and SSTC: It will be responsible for carrying out all the necessary project management activities to ensure efficient implementation through a Project Management Unit (PMU) under the responsibility of the Secretariat for Agrarian Development (SDA). The M&E system will support the planning, monitoring, and evaluation of results. Knowledge Management and South-South and Triangular Cooperation (SSTC) will enable the preparation of materials/systematizations on PPF II good practices, as well as allowing the exchange of knowledge through exchanges in the state of Ceará, the semiarid region of Brazil and other countries.

8. 62,000 family farming families (around 248,000 people) will benefit directly from the Project, of which at least 50% will be represented by women, 15% by young people, and 2% by Traditional Peoples and Communities (PCTs). The target population consists of rural families living in poverty and extreme poverty, whose livelihoods are based on low-productivity family farming, mainly ensuring self-consumption with the sale of surpluses and, in some cases, commercial and small-scale livestock farming. The Project's main target groups are: i) family farmers living in poverty and extreme poverty, ii) rural women, iii) rural youth, iv) PCTs, and v) LGBTQIAPN+.

INDIGENOUS PEOPLES IN THE PROJECT AREA

9. Extreme poverty affects indigenous people six times more than the rest of the Brazilian population.² Most of the indigenous population faces accelerated social transformation and needs to seek its physical and cultural survival and to guarantee a better quality of life for future generations. It is estimated that in Brazil, less than 5% of young rural indigenous people aged between 20 and 29 have 13 or more years of schooling.³ In terms of health, infant mortality in the first year of life for indigenous children is three times higher than the national average. Between 2018 and 2021, the Special Secretariat for Indigenous Health (SESAI) recorded 3,126 deaths of Indigenous children aged 0 to 5, primarily due to preventable and treatable diseases such as diarrhea and malnutrition - 72% of the deaths were of children under one. The precarious situation of indigenous children is evident in the fact that anemia affected 50% of them, according to SESAI's research.

10. The 2022 Demographic Census recognized just over 56,000 indigenous people in the state of Ceará, while the previous one, from 2010, counted around 19,300 indigenous people living inside and outside Indigenous Lands (ILs)⁴. Ceará is currently the ninth state in Brazil with the largest indigenous population. The state is following the national trend of an increase

² ECLAC (2016). The matrix of social inequality in Latin America. Available at: <https://www.cepal.org/es/publicaciones/40668-la-matriz-la-desigualdad-social-america-latina>.

³ Idem.

⁴ IBGE. Demographic Census, 2010 and 2022.

in the indigenous population. The Census data also shows the municipalities where there were more indigenous people in absolute numbers, with the municipalities of Caucaia (17,628 indigenous people) and Itarema (5,115 indigenous people) in the top positions – both part of the PPF’s intervention area.

11. In Ceará, there are currently 30 Indigenous Lands, occupying an area of approximately 22,330 hectares and with a population of around 23,000 inhabitants (see Table 1). Among these, the largest is the Tapeba Indigenous Land, totaling approximately 5,838 hectares and having a population of about 6,500 people.⁵ According to the most recent data from the National Foundation for Indigenous Peoples (FUNAI), Ceará has 20 ethnic groups: Anacé, Cariri, Gavião, Jenipapo-Kanindé, Kalabaça, Kanindé, Kariri, Kariri-Quixelô, Karão, Paiacu, Pitaguari, Potiguara, Quixará-Tapuia, Tapeba, Tabajara, Tapuia-Kariri, Tremembé, Tubiba-Tapuia, Tupinambá and Warão.

12. Ceará is one of the states lagging behind in demarcations⁶. Some indigenous communities are advanced in the process but are still waiting for their territories to be ratified; others are waiting for recognition. The Pitaguary and Tapebas tribes, for example, which have already had their land demarcated, are still awaiting the homologation process. The Tremembé village of Córrego João Pereira is the only territory titled in Ceará. Recently, the Federal and Ceará governments signed a technical cooperation agreement (TCA) for advancing the demarcation of indigenous lands in the state, benefiting the Jenipapo-Kanindé, Pitanguary, Tapeba, and Tremembé peoples.⁷

13. Ceará's indigenous peoples have gradually been incorporated into specific social policies such as health and education, including as teachers or health agents, which has allowed for the formation of new leadership and indigenous empowerment in a democratic and participatory way.⁸ For instance, in the Project area, both the Potiguara and the Tabajara villages have differentiated indigenous schools, where kindergarten, primary and secondary education are offered, as well as Youth and Adult Education (EJA)⁹. The Ceará state government maintains these institutions through its educational policy of inclusion and access to rights for indigenous peoples.

14. At the beginning of 2007, the State Plan for Policies to Promote Ethnic-Racial Equality was launched through the Secretariat for Labor and Social Development, which includes, among other actions: creating a higher education course in indigenous education at state universities; demanding the demarcation of indigenous lands for the construction of differentiated schools; and carrying out a socio-economic, political and cultural diagnosis of

⁵ MPF (2020). Tabela Terras Indígenas. Available at: <https://www.mpf.mp.br/atuacao-tematica/ccr6/documentos-e-publicacoes/tabela-terras-indigenas-2020/tabela-terras-indigenas-2020.pdf>.

⁶ Governo do Ceará. Ceará tem Secretaria voltada à proteção, fortalecimento e valorização dos povos e seus territórios. Available at: <https://www.ceara.gov.br/2023/04/19/dia-dos-povos-indigenas-ceara-tem-secretaria-voltada-a-protecao-fortalecimento-e-valorizacao-dos-povos-e-seus-territorios/>.

⁷ FUNAI (2023). Acordo para a demarcação de terras indígenas é celebrado entre os governos Federal e do Ceará. Available at: <https://www.gov.br/funai/pt-br/assuntos/noticias/2023/acordo-para-a-demarcacao-de-terras-indigenas-e-celebrado-entre-os-governos-federal-e-do-ceara>.

⁸ IPECE. Marco Referencial dos Povos Indígenas do Estado do Ceará. Available at: <https://adelco.org.br/wp-content/uploads/2018/06/Marco-Referencial-dos-Povos-Ind%C3%ADgenas-do-estado-do-cear%C3%A1.-IPECE.pdf>.

⁹ Ady Canário de Souza, Estevão. Práticas discursivas de atendimento educacional especializado em escolas indígenas Tabajara e Potiguaras do Município de Monsenhor Tabosa (CE). Available at: <https://repositorio.ufersa.edu.br/server/api/core/bitstreams/7c6060cb-bb61-4be9-8ef1-59984f62dac5/content>.

Ceará with an ethnic-racial perspective. On April 19, 2023, the state created the Secretariat for Indigenous Peoples.

15. The semiarid of Ceará is a region of great ethnic and cultural diversity, with a high concentration of traditional peoples and communities (PCTs)¹⁰. PCTs are particularly vulnerable due to historical dynamics of exclusion, high dependence on natural resources affected by climate change, marginalization of their ways of life, exclusion from the formulation of public policies, and poor access to services, including health, education, sanitation, infrastructure, and technical assistance services. Indigenous and quilombola¹¹ women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty, and food insecurity, as well as more limited access than other women to public health and education policies, among others. They are also the target groups most vulnerable to climate change.

16. The indigenous peoples of the Caatinga often live in reduced areas and suffer intense pressures that cause serious social, environmental, and climatic vulnerability. Within the rural area covered by the Project, according to the Demographic Census of 2022, there are 10,266 indigenous peoples, 49,7% women and 25.6% youth.¹² Of the total indigenous population, only 6,842 live in Indigenous Lands. Among family farmers, the 2017 Agricultural Census indicates that at least 798 are indigenous. Among the indigenous people registered in the Single Registry in the Project area (8,053), 76.6% are in poverty. Those Indigenous Lands and ethnic groups of Table 1 *in grey* live in the Project area and are potential beneficiaries of the PPF II's activities.

17. Although the indigenous peoples who will receive the Project's activities will only be selected during implementation, here is a brief general characterization note of some of the main ethnic groups living in the Project area:

18. **Tremembé**¹³. The Tremembé live in the municipalities of Itarema, Acaraú, and Itaipoca. In Itarema, they live both near the coast, especially in the district of Almofala, and inland, in an area already regularized by FUNAI, known as Córrego do João Pereira, which includes Capim-açu, São José, and Telhas¹⁴. The region where they live is characterized by diverse ecosystems, including environmental variety, both in terms of vegetation and animals, types of soil, and relief. In addition to the coastline and the Aracati-mirim river, there are several streams and lagoons. In terms of language, they speak Portuguese and have historically lost their native language. The Tremembé maintain the torém dance as their most unique cultural expression. In the mid-1990s, the Tremembé began to receive attention from

¹⁰ "Traditional Peoples and Communities" are defined by Decree 6.040/2007 as "culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations, and practices generated and transmitted by tradition." These groups include indigenous peoples, quilombolas, Afrodescendants, riverine communities, artisanal fishers, shellfish gatherers, and caboclos, among other groups.

¹¹ Quilombolas are descendants of enslaved people who resisted the slave regime and have their own cultural identity, values, religious beliefs, and means of subsistence.

¹² IBGE (2022). Demographic Census.

¹³ Note based on the following source: ISA. Povos Indígenas no Brasil. Tremembé. Available at: <https://pib.socioambiental.org/pt/Povo:Trememb%C3%A9>.

¹⁴ IPECE. Marco Referencial dos Povos Indígenas do estado do Ceará. Available at: <https://adelco.org.br/wp-content/uploads/2018/06/Marco-Referencial-dos-Povos-Ind%C3%ADgenas-do-estado-do-cear%C3%A1.-IPECE.pdf>.

various public policies, especially in education and health. The Tremembé village of Córrego João Pereira was the first territory to be demarcated, homologated, and titled in Ceará. The IFAD loan AKSAAM has worked on the *Territory and Food Culture Project*, whose aim was to promote the recognition and strengthening of the cultural and territorial identity of the Tremembé people of Barra do Mundaú by engaging community members in maintaining cultural practices related to food to strengthen food and nutritional sovereignty and security¹⁵.

19. **Anacé**¹⁶. The Anacé traditionally inhabit a territory located in São Gonçalo do Amarante and Caucaia. Their ethnic emergence is closely linked to the installation, in the same area, of a series of infrastructure projects that constitute the Pecém Industrial and Port Complex (CIPP)¹⁷. The historian Carlos Studart Filho documents that the Anacé who lived near the coast were warriors and were unwilling to submit to the new reordering imposed by the Portuguese Crown. These indigenous people, as a survival strategy, chose to hide their identity, especially in the more exogenous aspects. They stopped speaking their native language and adopted some elements of popular Catholicism that resembled their religious customs.¹⁸ The Anacé people, like so many indigenous peoples in the Northeast, have chosen *toré* as a "performative practice" to strengthen their struggle amid the conflictive process of identity affirmation in the context of the development of the CIPP¹⁹.

20. **Kariri**. The Kariri people live in the cities of Crateús and Cratos. The history of the Kariri is marked by displacement across the semiarid hinterlands, with the dispersion accentuating from the end of the 16th century due to the expansion of the colonial frontier. Entering the semiarid hinterlands of the north, they occupied those spaces as far as the Cariris Novos, in the captaincy of Ceará and portions bordering those of Pernambuco, Paraíba, and Piauí states. They encountered other indigenous nations, generating interethnic disputes over territories. The context became more conflictive when the non-Indians arrived, many of them victorious in the war against the natives who inhabited the banks of the Jaguaribe. Supported by missionary actions, especially those of the Italian Capuchin Order, the Kariri were settled, especially in Miranda, to promote their adaptation to the world of work, conversion to the Catholic Christian faith, and education along the lines of so-called civilized societies forging the erasure of cultural identity elements and practices. In 1867, there was a massacre of the Kariri/Xocó of Aldeia da Cachorra Morta. The Kariri current family nucleus of Crateús and Crato recognize themselves as indigenous but have historically concealed their origin as a form of protection. Today, at school and in the Kariri community, work is done to strengthen indigenous culture by learning handicrafts and performing healing rituals and the *toré*, also called the Jurema dance, by the ethnic groups living in Crateús.²⁰

¹⁵ The publication "Participatory Inventory of the Tremembé of Barra do Mundaú Food Culture" can be accessed at this link: <https://aksaam.ufv.br/ToolSys/Download/Publicacao/93/102>.

¹⁶ Note based on the following source: ISA. Povos Indígenas no Brasil. Anacé. Available at: <https://pib.socioambiental.org/pt/Povo:Anac%C3%A9>.

¹⁷ BRISSAC, Sérgio Góes Telles. NÓBREGA, Luciana Nogueira Nóbrega. Benzedeiros Anacé: a relevância dos ritos de cura na emergência étnica de um povo indígena do Ceará. 2010.

¹⁸ SANTANA, Iara Vanessa Fraga de. NETO, Pedro Vicente de Assis. AGUIAR, Rafaela Silveira de. SOUSA Valdênia Lourenço de. A Luta Anacé frente aos "imPACTos" industriais, 2010.

¹⁹ BRISSAC and NÓBREGA, 2010.

²⁰ Povos Indígenas do Ceará: organização, memória e luta. Fortaleza, novembro de 2007. Available at: [http://www.digitalmundomiraira.com.br/Patrimonio/CulturaPovosIndigenas/Livreto%20Povos Indigenas no Ceara Organizac ao Mem.pdf](http://www.digitalmundomiraira.com.br/Patrimonio/CulturaPovosIndigenas/Livreto%20Povos%20Indigenas%20no%20Ceara%20Organizac%20ao%20Mem.pdf).

21. **Potiguara**²¹. A warrior people from the land of Acajutibiró, the Potiguara are a great example of struggle among indigenous peoples in Northeast Brazil. Their history of contact with non-indigenous society dates back to the beginning of colonization. Today, they try to maintain the strength of their ethnic identity by relearning the Tupi-Guarani language, through the complex ritual of the toré, through the circulation of gifts in the festivals of São Miguel and Nossa Senhora dos Prazeres, through the production of the symbolic languages of blood and land, and cultural production within the practice of ethnic tourism. As in most indigenous groups located in the Northeast, toré is an important ritual practice, capable of marking out internal differences and projecting the groups in contact situations. In the case of the Potiguara, toré is usually performed during the celebrations of Indigenous Day (April 19) and is a "sacred ritual" that celebrates friendship between the different villages, highlighting the feeling of group and nation.

22. **Tapeba**. The Tapebas are the product of a historical process of ethnic individuation of fractions of various native indigenous societies gathered in the Village of Nossa Senhora dos Prazeres de Caucaia - which gave rise to the municipality of the same name, in the metropolitan region of Fortaleza, Ceará. Occupying different niches, the Tapeba use different forms of appropriation of natural resources, basically extractive and seasonal. Thus, the local groups have contrasting characteristics. There are areas inhabited mostly by "Tapebanos", such as the rural landscape of Tapeba (Lagoa do Tapeba, Cutia, Lagoa dos Porcos and Pedreira Santa Terezinha), where they work in agriculture (as day laborers and tenants) and in the "fruit business". There are other areas where their presence is residual, such as the neighborhoods on the urban perimeter of the municipality's headquarters (Capoeira/ Bairro Padre Júlio Maria, Açude, Cigana, Itambé, Grilo, Vila São José, Vila Nova/ Santa Rita neighborhood), where street vending, small services, and salaried work predominate.

23. **Tabajara**. They live in the municipalities of Crateús, Monsenhor Tabosa, Poranga, Quiterianópolis, and Tamboril. They have a history of successive migrations due to constant land conflicts. The Tabajaras who live in Crateús come from the neighboring mountains, mainly the Ibiapaba mountain range, and had to migrate to the city outskirts to escape the oppression of farmers who invaded their land. These Tabajaras have simple dwellings that form modest villages, where they live by hunting, fishing, and farming. They preserve traditional customs, such as the toré dance and the handicraft production of necklaces, bracelets, and other ornaments made from natural fibers and seeds from the region. The IFAD loan AKSAAM supported the *Territory and Food Culture Project*, which included a Participatory Inventory of the Tabajara of Sertão dos Inhamuns Food Culture.²²

²¹ Note prepared based on the following reference: ISA. Povos Indígenas no Brasil: Tremembé. Available at: <https://pib.socioambiental.org/pt/Povo:Trememb%C3%A9>.

²² The publication can be accessed at: <https://aksaam.ufv.br/ToolSys/Download/Publicacao/94/103>.

*Table 1: Table 1: INDIGENOUS LANDS, ETHNIC GROUPS IN CEARÁ (Source MPF).**

Sat e	Indigenous Land	Ethnic group	Municipal ity	Federal attorney jurisdiction (MPF)	Are a (ha)	Populat ion
CE	Aldeia Imburana	Tabajara	Poranga	PRM/Crateús/		1228
CE	Aldeia São José	Tupinambá	Cratéus	PRM/Crateús/		1228
CE	Anacé	Anacé	Caucaia	PR/CE		1262
CE	Cajueiro	Tabajara	Poranga	PRM/Crateús		
CE	Carnaubal	Tapuia-Kariri	São Bened ito	PRM/Sobral		(32 fami lies)
CE	Córrego João Per ei- ra	Tremembé		PRM/Sobral	3.16 2	449
CE	Fazenda Gameleira	Kanindé	Canindé	PRM/Limoeiro do Norte		55
CE	Kanindé de Aratu ba	Kanindé	Aratuba	PRM/Limoeiro do Norte		659
CE	Kariri de Crateús	Kariri	Cratéus	PRM/Crateús/		118
CE	Kariri do Crato	Kariri	Crato	PRM/Juazeiro d o Norte		(5 famili es)
CE	Lagoa Encantada	Jenipapo- Kanindé	Aquiraz	PR/CE	173 1	293
CE	Monte Nebo	Potiguara	Cratéus	PRM/Crateús/		
CE	Mundo Novo- Vira- ção (Pitagatapuia)	Gavião, Potig uara, Tabajara e Tubiba-Tapuia	Monsenho r Tabosa	PRM/Crateús/		2307
CE	Nova Terra	Potiguara	Cratéus	PRM/Crateús/		865
CE	Olho d'Água dos Canuto (Serra das Matas)	Tabajara	Monsenho r	PRM/Crateús/	74	28
CE	Paupina	Potiguara	Fortaleza	PR/CE		81
CE	Pitaguary	Pitaguari	Maracana ú e	PR/CE	173 5	3765
CE	Poranga	Tabajara e	Poranga	PRM/Crateús/		1228
CE	Potiguara de Nov o Oriente	Potiguara	Novo Orie nte	PRM/Crateús/		281
CE	São José e Buriti	Tremembé	Itapipoca	PRM/Sobral		73 (CIMI)
CE	Serra das Melanci as	Tabajara	Cratéus	PRM/Crateús/		23
CE	Taba dos Anacés	Anacé	Caucaia	PR/CE	543	
CE	Tabajara de Quit e- rianópolis	Tabajara	Quiterianó polis	PRM/Crateús/		319
CE	Tapeba	Tapeba	Caucaia	PR/CE	583 8	6552

CE	Tremembé da Barra do Mandaú	Tremembé	Itapipoca	PRM/Sobral	3580	494 (Funai)
CE	Tremembé de Acaraú	Tremembé	Acaraú	PRM/Itapipoca		
CE	Tremembé de Almo-fala	Tremembé	Itarema	PRM/Sobral	4900	1936
CE	Tremembé de Arau-eira	Tremembé	Acaraú	PRM/Sobral		
CE	Tremembé de	Tremembé	Acaraú	PRM/Sobral	767	126
CE	Vila Vitória	Kalabaças	Cratéus	PRM/Crateús/		168

*The ILs highlighted *in grey* are those located in the 74 municipalities that compose the Project area.

RELEVANT LEGAL FRAMEWORK

24. The implementation of this IPPF is an IFAD policy requirement. It aligns with Brazilian Law and international commitments, notably with the ILO Convention 169 on Indigenous Peoples, ratified by the Brazilian Congress and currently in force. The following paragraphs present a summary of these legal documents:

IFAD POLICY ON INDIGENOUS PEOPLES²³

25. On IFAD projects that may affect indigenous peoples' land, territories, or resources, Project approval is contingent on obtaining Free, Prior, Informed Consent during Project design. If FPIC is not possible at the design stage, an FPIC implementation plan should be prepared to guide the FPIC process during implementation. In appraising such projects, the IFAD verifies whether they include measures to (i) avoid potentially adverse effects on the indigenous peoples' communities or (ii) minimize, mitigate, or compensate for adverse effects when avoidance is not feasible. The objectives of IFAD standard 4 on Indigenous Peoples are:

- Support indigenous peoples to determine priorities and strategies for exercising their right to development;
- Ensure that each Project is designed in partnership with indigenous peoples and with their full, effective, and meaningful consultation, leading to FPIC;
- Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project-supported activities in a culturally appropriate and inclusive manner and
- Recognize and respect the rights of indigenous peoples to the lands, territories, waters, and other resources they have traditionally owned, used, or relied upon.

Standard 4 requires meaningful consultations and FPIC. IFAD will ensure that FPIC is applied in all projects affecting indigenous peoples that:

- May have an impact on the land access and use rights of rural communities and
- Target indigenous peoples or rural areas that are home to indigenous peoples.

26. Engagement with indigenous peoples will be undertaken in good faith, in a culturally appropriate manner, and with full regard to these peoples' institutions, governance systems,

²³ For more detailed information, please refer to IFAD's Social, Environmental, and Climate Assessment Procedures (SECAP) at <https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>.

customs, and decision-making methods. Each borrower/recipient/partner is responsible for seeking FPIC as part of the consultation process with indigenous peoples. This process should continue throughout all phases of the project cycle. FPIC needs to be solicited either before project approval (in the design phase) or during implementation, depending on the nature of the Project and the stage in the project cycle in which target communities are identified. When it is not possible to seek FPIC during project design, an FPIC implementation plan should be prepared specifying how FPIC will be sought during early implementation and before any investments are made²⁴. The FPIC implementation plan must be made accessible in a timely manner and as early as possible during implementation.

Indigenous Peoples Plan (IPP)

27. Projects that affect indigenous peoples require an IPP prepared by the borrower/recipient/partner. The IPP should include:

- (i) a sociocultural and land tenure assessment;
- (ii) the specific characteristics of each indigenous people or historically underserved local community;
- (iii) strategy for working with indigenous peoples and
- (iv) documentation of the FPIC process.

28. The IPP should be integrated into project design and implementation, identifying potential risks and impacts, and outlining risk avoidance and mitigation measures. It should also specify measures for:

- (i) providing culturally appropriate benefits;
- (ii) continued consultation and participation;
- (iii) grievance procedures;
- (iv) monitoring and evaluation, and
- (v) a budget and financial plan for risk-mitigation measures.

29. An indicative outline of the IPP is available at the end of this report.

BRAZILIAN LEGISLATION

Federal Constitution of 1988

30. The 1988 Federal Constitution sets out the principles governing the basic rights of indigenous peoples. It forms the legal basis from which complementary laws, decrees, ordinances, and other national legislation on indigenous peoples derive. The main advance, apart from the recognition of differentiated territorial and cultural rights, was the legal aspects that recognized and defined actions to strengthen the autonomy of these peoples. The two articles below are of particular relevance to the Project:

Art. 231. Indigenous peoples are recognized for their social organization, customs, languages, beliefs, and traditions, and for their original rights over the lands they

²⁴ The PPF II elaborated an FPIC Plan during design to guide the FPIC process which will occur in the beginning of implementation.

traditionally occupy, and the Union is responsible for demarcating, protecting, and ensuring respect for all their property.

Art. 232. Indigenous peoples, their communities, and organizations are legitimate parties to take legal action to defend their rights and interests, with the Public Prosecutor's Office intervening in all acts of the process.

Decree n. 11.355 of January 1st, 2023²⁵ - Creation of the Ministry for Indigenous Peoples

31. Creates the Ministry for Indigenous Peoples and approves its organizational structure, putting the Brazilian Agency for Indigenous Peoples (FUNAI) under its line responsibility (formerly under the Ministry of Justice). FUNAI is a key interlocutor in communicating with indigenous peoples, and the Project implementing partners should coordinate Project activities with it at the Federal and State levels.

ILO 169 Convention

32. The right of indigenous and tribal peoples to be consulted, in a free and informed manner, before decisions are made that may affect their property or rights, or the so-called state obligation to consult, was first provided for at the international level in 1989 when the International Labor Organization (ILO) adopted Convention 169. The Convention was ratified by Brazil in 2004, and it is in force. The Convention establishes the rights of Indigenous peoples to Free, Prior, Informed Consent (FPIC). This type of consultation is an obligation of the Brazilian state to properly and respectfully ask indigenous peoples for their position on administrative and legislative decisions that could affect their lives and rights. It is the right of indigenous peoples to be consulted and to participate in the decisions of the Brazilian state through intercultural dialogue marked by good faith. This dialogue must be broadly participatory, transparent, free from pressure, flexible to take account of the diversity of indigenous peoples and communities and have a binding effect in the sense that it leads the state to incorporate what is discussed into the decision to be taken.

PNGATI - National Policy for Territorial and Environmental Management of Indigenous Lands

33. The creation of PNGATI comes after Brazil ratifies the ILO 169 Convention, as we can see from the decree's wording. This law guarantees indigenous peoples the conditions for territorial management, ensuring respect for their sociocultural systems and fostering sustainable development in their territories. Here, we highlight the first article of the Law, which defines its general parameters.

Art. 1 The National Policy for Territorial and Environmental Management of Indigenous Lands - PNGATI - is established to guarantee and promote the protection, recovery, conservation, and sustainable use of the natural resources of indigenous lands and territories, ensuring the integrity of indigenous heritage, the improvement of quality of life and the full conditions for the physical and cultural reproduction of current and future generations of indigenous peoples, respecting their sociocultural autonomy, under the terms of current legislation.

²⁵ <https://legislacao.presidencia.gov.br/atos/?tipo=DEC&numero=11355&ano=2023&ato=68aUTVU9kMZpWT552>

FREE, PRIOR, INFORMED CONSENT (FPIC)

34. Historically, indigenous peoples have been subjected to state policy decisions that did not consider the possible negative impacts on their traditional ways of life. Specifically, in Brazil, laws were formulated based on the supposed incapacity of indigenous people to make decisions. Whether it was defining public policies or authorizing the implementation of development projects, there was no guaranteed form of indigenous participation in these processes.

35. The Brazilian state changed course on this regard thanks to international treaties and provisions. ILO Convention 169 of June 7, 1989, was the legal framework from which the parameters that gave rise to the other regulations on this issue were established. Brazil signed up for ILO Convention 169 through Presidential Decree 5051 of April 19, 2004. The American Declaration on the Rights of Indigenous Peoples reaffirms this right.

36. The central aim of this legal framework is to ensure that indigenous peoples have the right to be consulted in advance about decisions that affect their lives and to guarantee that the methodologies used are appropriate to their sociocultural contexts. Many indigenous peoples have already drawn up the documents establishing their Consultation Protocols. In these documents, indigenous peoples define the methodologies and stages that must be followed to consult them.

37. FPIC will be carried out based on the methodology proposed in the FPIC Plan. During Project implementation, consent must be guaranteed through a continuous and inclusive consultation process and the participation of indigenous peoples. The Project must seek to build a relationship of trust with the communities, their organizations, and governance institutions. With this in mind, it should be noted that if, during the life of the Project, the beneficiary indigenous peoples conclude the construction of their Consultation Protocols, these will become the consultation mechanisms to be considered. The FPIC Plan provides for the participation of indigenous peoples right from the planning stages for carrying out consultation activities in accordance with ILO 169 and good practices for FPIC implementation processes.

ASSOCIATIONS AND POLITICAL REPRESENTATION

38. The forms of formal organization that have emerged from interaction with our society can never be seen as a substitute for the traditional decision-making bodies of indigenous peoples. Associations play the role of mediators in relations with external agents. In some cases, these associations already include references to bodies such as the Council of Elders or women's representation in their statutes or internal regulations.

39. In a simplified way, we should understand that the local Indigenous Associations are appropriated by the Indigenous people fundamentally as catalysts for resources, executors of actions, and political representations of their interests. Because of this, the same Indigenous Land can have more than one association. Even if there are forums and consultations, mechanisms provided for in their statutes and/or bylaws, all the sociocultural dynamics described above are also reflected in the Indigenous Associations. In other words, by legitimizing an association as their representative, a chief or leader is not necessarily giving up their desire to be consulted individually. In the same way, at a specific moment, internal issues can cause a relative distancing between the association and part of the group that constitutes it.

40. Organizations with a specific focus (women, young people, and teachers) can bring together the agendas common to these groups. However, when implementing actions, it is important to check that these agendas align with the other representation instances. This is necessary to avoid generating internal conflicts. There are records of cases in which chiefs have felt discredited because they were not involved in decision-making processes, and this has caused discomfort in the communities. Larger organizations, which aim to represent the state or national level, are important in dealing with issues from a macro perspective, as they allow for a connection between what is being dealt with locally and the agendas being pursued broadly by the organized indigenous movement.

41. The below table presents a list of associations in the Indigenous Lands in the Project's area. These are likely the main points of entry for the Project and its implementing partners to engage with indigenous peoples to obtain their FPIC.

Table 2: INDIGENOUS PEOPLES ASSOCIATIONS IN THE PROJECT AREA (Source MPF²⁶).

Associations in the municipalities of the Project intervention area					
Association name	Village or Address	Indigenous Land	CEP	Municipality	State
Articulação das Mulheres Indígenas Tapeba	Terra Indígena Tapeba	-		Caucaia	CE
Associação das Comunidades dos Índios Tapeba de Caucaia	Rua do Trilho, 162	Capuan	6160000 0	Caucaia	CE
Associação das Mulheres Indígenas Pitaguary	Rua Maria Bezerra da Silva, 413	Horto	6190922 0	Maracanaú	CE
Associação das Mulheres Indígenas Tabajara e Kalabaça	Aldeia Cajueiro	Cajueiro		Poranga	CE
Associação dos Povos Indígenas Tabajara em Crateús	Rua Gustavo Barroso, 948	São Vicente	6370000 0	Crateús	CE
Associação Indígena da Aldeia Jucás	Rua Artemísio Gomes	Jucás	6378000 0	Monsenhor Tabosa	CE
Associação Raízes Indígenas dos Potyguara em Crateús	Rua Dezenove de Março, 44	Campo Velho	6370000 0	Cratéus	CE
Associação Unidos Venceremos	Olho D'agua dos Canutos - Povo Tabajara	Terra Indígena Governador	6378000 0	Monsenhor Tabosa	CE
Conselho do Povo Indígena Potiguara da Serra das Matas	Aldeia Mundo Novo	Terra Indígena Mundo Novo/Viração	6378000 0	Monsenhor Tabosa	CE

²⁶ <https://www.mpf.mp.br/atuacao-tematica/ccr6/documentos-e-publicacoes/tabela-terras-indigenas-2020/tabela-terras-indigenas-2020.pdf>

Associations in the municipalities of the Project intervention area					
Association name	Village or Address	Indigenous Land	CEP	Municipality	State
Conselho dos Povos Indígenas de Cratéus e Região	Rua Afonso Chaves, 1153	Fátima	6370000 0	Crateus	CE
Cooperativa Agropecuária União dos Indígenas	Rua Do Trilho, 4001	Capuan	6161507 0	Caucaia	CE
State-level Indigenous Peoples Organizations/associations					
Association name	Village or Address	Indigenous Land	CEP	Municipality	State
Coordenação das Organizações dos Povos Indígenas no Ceará	Rua Cratéus, 1540	Parquelândia	6045516 6	Fortaleza	CE
Federação dos Povos e Organizações Indígenas do Ceará	-	-		-	CE
Organização dos Professores Indígenas do Ceará	-	-		-	CE
Sociedade Indígena Tremembé Córrego João Pereira	Rua José Cândido, 53	Monte Castelo	6030000 0	Fortaleza	CE

GRIEVANCE REDRESS MECHANISM (GRM)

42. The Project will establish a Grievance Redress Mechanism (GRM) to resolve eventual complaints and grievances promptly and satisfactorily²⁷. All potentially affected people will be informed of their rights and given clear information and instructions on the procedures involved in filing a complaint. If a complaint is raised during implementation, the Project will consider it a priority for the implementing agencies and partners to resolve it as soon as possible. This should preferably be done at the local level, through a conciliation process using community systems and mechanisms, or, if this is not possible, the complaint will be taken outside the community for resolution, for example, to dedicated authorities. Based on IFAD's experience in drafting GRMs with indigenous peoples, it should be anticipated that, in all cases, certain principles should be taken into consideration when defining the GRM with the communities involved:

- Consider the terms established in the FPIC.
- Good faith and goodwill to resolve the conflict, claim, complaint, or dispute should be considered an essential prerequisite for the process.
- A mediator may be mutually agreed to assist in resolving the conflict and/or complaint.
- The decision/resolution reached by mutual agreement should be considered final.
- Such a decision will be signed by both parties and witnessed and communicated as the final and binding decision - at whatever level, a decision or resolution of conflict or complaint is agreed.

43. If needed, the Project may establish one or more grievance mechanisms at the regional level where complaints, questions, concerns, and ideas can be forwarded. Contact information and information on the complaints process will be disseminated at meetings, workshops, and other related events throughout the life of the Project. The Project will include information about the GRM in the training program and will organize consultations to determine the most appropriate way for beneficiaries and stakeholders to communicate their concerns and ideas.

44. For indigenous peoples, this consultation on the most appropriate way to address complaints should be dealt with at the FPIC. This will highlight the communities' internal conflict resolution processes from the perspective of each people's own sociocultural systems. It is worth noting that there are organizations and forums beyond the communities where indigenous people already participate. Hence, the concept, even in the mold of our society, is not something intangible for them.

45. The Grievance Mechanism and guidelines will be developed for the Project, considering IFAD's Corporate Grievance Procedure to receive and facilitate the resolution of concerns and complaints regarding alleged non-compliance with mandatory aspects of its Social, Environmental, and Climate Assessment Procedures. The Project will also be responsible for documenting and reporting, as part of safeguards performance monitoring, any complaints received and how they were addressed.

²⁷ For detailed information consult the Annex dedicated exclusively to the GRM.

46. **How do you lodge a complaint at the Project level?**

47. Having established during FPIC how indigenous people would like to be heard in the event of complaints. It will be up to the PMU to first process the information and enter it into the Project's complaints system. Complaints must include the following information:

- Name, address, telephone number, and other contact information.
- All necessary steps will be taken to keep the identity of complainants confidential in the complaint's procedure when requested.
- Name, location, and nature of the Project How Complainants believe they have been, or are likely to be, adversely affected by the IFAD-supported Project or program.

48. **The process at the local level**

49. Submitted complaints will be sent to the Project Manager (PM) and the M&E officer to assess whether the complaint is eligible. The PM will inform and incorporate the relevant senior safeguard, social, and/or environmental specialist, as necessary. The PMU will handle eligible complaints. The PM and the relevant Senior Safeguards Specialist, with the support of the M&E Officer, will be responsible for recording the complaint and how it was handled if a resolution has been agreed. All complaints received, their responses, and resolutions must be duly recorded.

50. It is important to clarify that access to a complaint mechanism should represent the last resort since the Stakeholder Engagement Strategy outlines the Project should cultivate constant dialogue between these most vulnerable social groups and professionals trained to consider such demands and mediate conflicts (Traditional Peoples Specialist). This strategy can be seen as prevention so that concerns can be channeled and expressed in due time and do not necessarily have to move to the next level, becoming complaints in their own right.

MONITORING AND EVALUATION

51. The Project's evaluation and monitoring mechanisms will align with the IPP and the FPIC. The dynamic nature of these documents, which is premised on ensuring that indigenous peoples are heard before and during the implementation of the Project, makes it possible for the evaluation and monitoring parameters to be readjusted if necessary. The PMU will be responsible for ensuring the implementation of the IPP and what is agreed upon in the FPIC in close collaboration with other relevant project partners identified during the design phase. The recommended steps to be followed in the initial project implementation phase are:

- i. Conduct workshops to raise awareness about the FPIC process with Project teams, ensuring understanding of FPIC principles and operational mechanisms, review of signed agreements, implementation arrangements, and timeline of project activities in indigenous communities;
- ii. Introduce the PMU and ensure that Project teams are familiar with its procedures;
- iii. Identify knowledge gaps in the Project

DRAFT STRUCTURE OF AN INDIGENOUS PEOPLES PLAN

52. For investments in indigenous peoples, a brief Indigenous Peoples Plan is required. A suggested outline is presented below:

Executive Summary of the Indigenous Peoples Plan

Concisely describes the critical facts, significant findings, and recommended actions

Description of the Project

General description of the Project, the project area, and components/activities that may lead to impacts on indigenous peoples

Description of Indigenous Peoples

A description of affected indigenous people(s) and their locations, including:

- i. Description of the community or communities constituting the affected peoples (e.g., names, ethnicities, dialects, estimated numbers, etc.);
- ii. Description of the resources, lands, and territories to be affected and the affected peoples' connections/relationship with those resources, lands, and territories; and
- iii. An identification of any vulnerable groups within the affected peoples (e.g., uncontacted and voluntarily isolated peoples, women, and girls, the disabled and elderly, and others).

Summary of substantive rights and legal framework

A description of the substantive rights of indigenous peoples and the applicable legal framework, including:

- i. An analysis of applicable domestic and international laws affirming and protecting the rights of indigenous peoples (include a general assessment of government implementation of the same); and
- ii. Analysis of whether the Project involves activities contingent on establishing legally recognized rights to lands, resources, or territories that indigenous peoples have traditionally owned, occupied, or otherwise used or acquired. Where such contingency exists (see sections of standard 4, paragraph 8), include Identification of the steps and associated timetable for supporting legal recognition of such ownership, occupation, or usage, with the support of the relevant authority. This should include how delimitation, demarcation, and titling shall respect the customs, traditions, norms, values, land tenure systems, and effective and meaningful participation of the affected peoples, with legal recognition granted to titles with the full, free prior and informed consent of the affected peoples; and

Summary of social and environmental assessment and mitigation measures

(i) A summary of the findings and recommendations of the required prior social and environmental impact studies, specifically those related to indigenous peoples, their rights, lands, territories, resources, traditional livelihoods, and cultural heritage. This

should include how the affected indigenous peoples participated in such studies and their views on the participation mechanisms, the findings, and recommendations.

Where potential risks and adverse impacts to indigenous peoples, their lands, resources, and territories are identified, the plan should provide details and associated timelines for the planned measures to avoid, minimize, mitigate, or compensate for these adverse effects. It should also identify special measures to promote and protect the rights and interests of the indigenous peoples, including compliance with the affected peoples' internal norms and customs.

Participation, consultation, and FPIC processes

- I. A summary of results of the culturally appropriate consultation and FPIC processes undertaken with the affected peoples, which led to the indigenous peoples' support for the Project.
- II. A description of the mechanisms to conduct iterative consultation and consent processes throughout the implementation of the Project. Identify particular project activities and circumstances that require consultation and FPIC.

Capacity support

Description of measures to support social, legal, and technical capabilities of indigenous people's organizations in the project area to enable them to better represent the affected indigenous peoples more effectively.

Grievance redress

A description of the procedures available to address grievances brought by the affected indigenous peoples arising from project implementation, including the remedies available, how the grievance mechanisms consider indigenous peoples' customary laws and dispute resolution processes, as well as the effective capacity of indigenous peoples under national laws to denounce violations and secure remedies for the same in domestic courts and administrative processes.

Monitoring, reporting, and evaluation

- i. Mechanisms and benchmarks appropriate to the Project for transparent, participatory joint monitoring (including independent experts), evaluation, and reporting, including a description of how the affected indigenous peoples are involved.
- ii. Define the mechanisms for periodic review and revision of the IPP if new project circumstances warrant modifications developed through consultation and consent processes with the affected indigenous peoples.

Institutional arrangements

Describes institutional arrangement responsibilities and mechanisms for carrying out the measures contained in the IPP, including mechanisms for participation of affected indigenous peoples. Describes the role of independent, impartial entities to audit and conduct social and environmental assessments, as required, and/or to conduct oversight of the Project.

Budget and financing

Note: The IPP will be implemented as part of project implementation. However, in no case shall project activities that may adversely affect indigenous peoples occur before the corresponding IPP activities are implemented. Where other project documents have already been developed and address issues listed in the above sections, citation to the relevant document(s) shall suffice.

For an IPPF, the above outline would be modified to include the screening, assessment, and development procedures of specific IPP(s) once the project components, subprojects, and/or activities have been fully defined. The procedures would generally replace section E above; however, the IPPF would still seek to identify types of anticipated potential adverse social and environmental impacts.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: B Marketing And Market Access

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Project No. 2000004317

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Latin America and the Caribbean
Programme Management Department

ANNEX B: MARKETING AND MARKET ACCESS

LESSONS LEARNED FROM PPF I TO BE INTEGRATED IN THE IMPLEMENTATION OF PPF II

In terms of production, the Paulo Freire I Project has worked in such a way that the dynamics of family farming production include, firstly, the goal of food self-sufficiency, and then the generation of surpluses for sale. The emphasis on achieving self-sufficiency can be explained by the project's focus on prioritizing families who live in poverty and extreme poverty.

The project worked with 600 rural communities, of which 532 benefited from financial resources to support activities such as sheep and goat farming, pig farming, poultry farming, beekeeping, artisanal fishing and productive backyard gardens, among others. Social technologies such as the reuse of gray water were associated with most of the poultry and productive backyard projects, while the biodigester was associated with pig farming. In addition to agricultural activities, the project supported small food processing units and handicrafts (straw, clay, fabrics, etc.). As a way of guaranteeing the quality of the investments in the field, the beneficiaries received technical assistance from various organizations. Other PPF activities included access to water for the families' consumption and for the development of production.

The public health crisis caused by the coronavirus in Brazil has led the various levels of government to adopt urgent measures to contain the domestic spread of the virus. The decree of quarantine in most places, with the closure of most businesses, the suspension of classes in public and private schools and the prohibition of activities and events that gather large numbers of people reduced the level of economic activity throughout the country, impacting various productive sectors.

In the early stages of the pandemic, the economic effects on family farming were mainly related to the maintenance of productive activity and the difficulties in selling their production, due to the suspension of public fairs, the closure of restaurants and the reduction in purchases for school meals. A few months later, parts of the activities recovered and returned to normal, while taking into account safety protocols to contain the spread of the virus. During this period, community fairs, with opportunities for sale, exchange and donation, and virtual fairs were a new marketing experience and could become new channels to be explored in normal times.

As investments were made in the field and production was strengthened, beneficiaries also began to generate surpluses to be marketed. It was found that the project, with its ATER, supported the beneficiaries with marketing, although not to a large extent, considering the scope of the project. The following were very positive examples of the implemented activities: i) organizing agroecological fairs at the City Halls of some municipalities, in districts and communities, ii) with the pandemic, virtual fairs, iii) annual fairs in municipalities and communities, iv) access to the PAA and PNAE, v) marketing via cooperatives, vi) a network of agroecological and solidarity fairs and a tourism network, vii) registering handicraft groups on digital platforms (covid radar connection, Central de Artesanato do Ceará - CeArt), etc. Also noteworthy in these activities is the dissemination of the practice of fair trade and solidarity, the involvement of youth and the broad participation of women.

The groundwork has been laid with diversified sales channels, but with a greater or lesser degree of dependence on the work of ATER. In this sense, the purpose of this text is to contribute elements so that PPF II and ATER organizations can plan and build simple activities that can be applied to strengthen the beneficiaries' knowledge of how to market their products more efficiently and with better results on their own. The focus of this text is on surplus produce from the productive backyard gardens (vegetables, fruit, medicinal plants, chickens, eggs, etc.) that needs to be marketed

more quickly, and small products from food processing. For products such as sheep and goats, honey and cashew nuts, there are already established value chains. In these cases the project will be able to assist families on how to improve marketing conditions in a more organized way, seeking to increase the value of products.

Elements to improve marketing and market access:

Institutional strengthening: consists of strengthening associations and increasing farmers' visibility on the market.

- I. Organization: this is one of the most important ways for more beneficiaries to achieve the autonomy they need to continue producing and marketing their surpluses after PPF II is completed. In this sense, there is already an important legacy from PPF 1 in terms of the organization of associations, which needs to be strengthened beyond the issues surrounding the agreements. Specifically, in the case of marketing and access to the market, many difficulties can be overcome collectively, for example, dialog with municipalities about fairs (location, stalls, etc.), food supply for PAA and PNAE, conservation of side roads, among others. Collectively, it is possible to reduce difficulties with logistics, have a diversified supply of products, in quantity and with greater frequency, and thus convey more security and interest on buyers. For some value chains, such as beekeeping, collective marketing makes it possible to negotiate honey directly with buying companies, without the need for intermediaries. In some way, this work could be carried out by ATER, using the successful experiences identified and replicating them in other communities, but always with aiming at preparing the organizations to achieve autonomy in carrying out the processes.
- II. Partnerships: prepare the associations on how to identify opportunities or how to generate demand together with the municipalities (for example with the secretariat of agriculture, education, social welfare), in search of various forms of support (fairs, PAA, PNAE, etc.). Other possible partners: FETRAECE, rural unions, universities, federal institutes, NGOs, state government programs and actions, cooperatives, etc.
- III. Marketing: advising beneficiaries and their organizations on the advantages of using simple marketing strategies as a tool to increase their visibility and that of their products in the market. Appropriate use of social networks and applications such as WhatsApp are widespread, but do not replace other practices that may be more appropriate to the context of family farming. For example, in the case of fairs, standardizing stalls, clothing for market vendors, banners with information about the production system, leaflets/brochures with information for commercial contacts (telephone, social networks, whatsapp, e-mail), guidelines on approaching customers to offer their products, publicity on community radio stations, among other low-cost activities.

Technical strengthening: consists of designing a complementary ATER training program to reinforce knowledge on issues that have an impact on marketing.

Planning: according to each family's production capacity, identify the best production and profitability options. Diversifying production is a way of providing year-round income. Through collective marketing, it becomes easier to offer a variety of products, to meet the needs of programs such as the PAA and PNAE, and to access online markets.

Post-harvest handling: simple guidelines on preserving, packaging and transporting food (fruit, vegetables, medicinal plants, etc.) and the relationship this as on aspects such as quality, reducing losses, customer satisfaction and improving income;

Legislation: especially in the case of processed foods (cakes, breads, fruit jams, *dulce de leche*, cheeses, flour, fruit pulps, etc.) it is important to provide guidance on: i) the link between each type of product and its respective control entity (health surveillance and the ministry of agriculture at municipal, state or federal level), ii) production

processes and good manufacturing practices, iii) labeling, iv) nutritional information, among others. This topic is especially relevant as it involves food safety issues for the end consumer, for example allergy information, people with celiac disease, diabetics, etc;

Basic management: focusing mainly on the costs and expenses involved in producing a given product (raw materials, packaging, labels, water, electricity, labor, logistics, licenses, etc.), pricing, fiscal and tax issues, among other topics.

Given the specificity and complexity of some of the presented topics in this document, it is important that PPF II, together with ATER, look for partners to contribute to this challenge, such as universities, federal institutes, SENAR, Ematerce, which are potential partners to contribute to this process, through rural extension programs, information and educational material. The knowledge management projects implemented in recent years, such as AKSAAM, DAKI and Semear Internacional, will be an important source of references for PPF II to directly applying lessons learned and good practices in the activities mentioned above.

The aim of all these activities is to strengthen the resilience and income of PPF II beneficiaries, whether they work individually or collectively through their community associations and cooperatives. Once PPF II is completed, the beneficiaries are expected to be better prepared to carry on with their activities in a more sustainable way.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: C Main Lessons Learned

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Programme Management Department

ANNEX C: LESSONS LEARNED FROM PROJECTS IN THE CEARÁ REGION OF BRAZIL

ANNEX C – Full list of lessons and projects evaluated

Project name	Donor	Duration
Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil	IFAD	2014-2024
Sustainable Development Project for Agrarian Reform Settlements in the Semiarid North-East	IFAD	2000-2009
Productive Development and Capacity-Building Project	IFAD	2013-2021
Ceará Integrated Water Resources Management Project	WB	1999-2011
Federal Water Resources Management Project	WB	1997-2003
Br Water S.Mod.2	WB	1998-2008
Land-Based Poverty Alleviation Project I	WB	2000-2008
Northeast Microfinance Development Project	WB	2000-2007
Rural Poverty Reduction Project -Ceará	WB	2001-2009
Caatinga Conservation and Management - Mata Branca - (GEF)	WB	2007-2013
Ceará Multi-sector Social Inclusion Development	WB	2005-2007
Br Environmental Sustainability Agenda Tal	WB	2005-2011
Ceará Regional Economic Development: Cidades do Ceará	WB	2009-2016
BR Ceará Inclusive Growth (SWAp II)	WB	2008-2012
BR Federal Integrated Water - Interaguas	WB	2011-2018
Ceará Rural Sustainable Development and Competitiveness	WB	2012-2019
Strengthening Public Management and Integrated Territorial Development	WB	2014-2017
BR DGM for Indigenous People and Traditional Communities	WB	2015-2022
Strengthening national policy and knowledge framework in support of sustainable management of Brazil's forest resources	FAO	2011-2019
Reversing Desertification Process in Susceptible Areas of Brazil: Sustainable Agroforestry Practices and Biodiversity Conservation	FAO	2018-2022

ANNEX C – Detailed lessons learned

Importance of comprehensive and collaborative approaches to address the challenges faced by marginalized communities

- Programs, to foster successful integration of marginalized communities, require an aggressive, multi-pronged approach and are manpower intensive. Concentrated efforts to maximize the benefits of integration call for pro-activity in establishing a diverse network of partnerships, anchored within a consistent, pro-poor sector strategy which maintains focus on the ultimate beneficiaries. **Rural Poverty Reduction Project -Ceará. WB. 2001-2009**
- Participatory methodological approaches and institutional arrangements focused on partnerships play an important role in project's implementation and in incorporating global environmental issues and promoting sustainable development and better quality of life. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**

Production systems, Agroecology, and environmental gains

- The "coexistence with the semiarid" and agroecological approach of the project, requires technicians to respond to the climate change risks of the semiarid region, the most significant of which is water scarcity, and explore ways to enable the farmers to live in harmony with these conditions. Adaptive practices included forage production for the dry season (forage palm amongst others), diversifying production and income-generation, promoting animal breeds adapted to the semi-arid region such as free-range chicken, capacity building on grey water treatment and re-use in irrigation to promote efficient use of a scarce resource, and use of residues for organic compost production. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- Invest more in disseminating innovations and integration with subsystems (fields, livestock, backyards, caatinga areas). Incorporating practices (livestock-raising and sustainable production practices such as agroecological vegetable gardens and orchards, agroecological cotton consortia and caatinga management) and establishing relationships between subsystems enhance production and provide a broader view of environmental issues and a better understanding of the phenomena involved in land degradation. Additionally, expand the range of innovative practices options such as production and storage of fodder and diversification of monocultures (e.g., cashew orchards in Rio Grande do Norte). **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- Implementing new production systems is a significant challenge that doesn't happen automatically. To facilitate adoption and behavioural change by the population, it is important to address the environmental aspects from a production standpoint rather than the contrary. Discussing and treating production aspects facilitates the integration of environmental concerns, social development, and poverty reduction, while helping families to get involved in the task of combating land degradation. Project should promote sustainable practices that prove to be more productive and save more resources than traditional forms of land use, while generating additional revenue and expanding the options for household consumption and hence food security. This set of benefits not only leads to changes

in habits when dealing with natural resources, but also increases the awareness of the need to maintain them, making references to combating land degradation in the semi-arid region. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**

- Preparation and analysis of small-scale productive activities with groups with limited commercial experience need high quality inputs (training and technical assistance) to ensure that plans are viable and appropriate technical skills are available. **Rural Poverty Reduction Project -Ceará. WB. 2001-2009**
- Working methods and new practises used in communities and settlements can encourage and strengthen local organizations, while spurring direct participation of women and men farmers in activities. For instance, in the case of agroecological consortia, the flow of production into the organic market required certification. Households and the Project opted for a participatory certification process and intensive work was conducted in this direction. The result was the creation of several OPACs. The existence of more active local organizations increases the likelihood that the results of the Project will last. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- The process of identifying, testing, training, and providing assistance were key to the development and incorporation, by women and men farmers, of sustainable practices that are mainly characterized by use of local inputs, adjustment to the capacity and skills of households and to available resources, conservation of natural resources (soil, water, biodiversity), exploitation of niches with high yield potential (backyards, orchards, shoals), and the ability to make production activities more stable and resilient. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- **Environmental education.** Environmental awareness of households and their natural resource management can be improved via formal education, trainings, collective planning, monitoring, and building of practical references. Challenges in formal environmental education include nucleation of schools, educational content defined by the Ministry of Education (MEC) and involvement of public officials. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- While Ceará has made considerable improvements incorporating social and environmental safeguards in the planning of projects, it is important to further strengthen civil society and stimulate its demand for compliance with such safeguards, as a matter of good governance and sustainability of these institutional achievements. **Ceará Integrated Water Resources Management Project. WB. 1999-2011**
- **Environmental services revenue** - The study on payment for environment services conducted in a micro-watershed (Ramada da Quixabeira settlement) is an important input for both the debate and the making of policies on paying family farmers for environmental services in the semi-arid northeastern Brazil. There is a need to analyse and discuss the study results with the concerned sectors (watershed committees, social organizations, municipal, state and federal governments, and institutions involved with the carbon market, among others). Also, to evolve beyond studies and pilot initiatives and effectively benefit households, the arrangement should be improved, as it still lacks a legal framework

and financing, institutional support from mediators (government agencies, watershed committees, etc.). **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**

Market access

- To meet multidimensional objectives such as overcoming poverty, reducing land degradation, and promoting sustainable development, it's crucial to focus on the whole production chain, from building productive innovations to the flow of production and markets. For instance, in the Sertão Project, farmers access to different channels – organic/fair markets, agroecological fairs, institutional markets – to market their products spurred the adoption of sustainable production practices. Having buyers for their products encouraged the adoption of new practices linked to production diversification and productivity. Avoiding prioritizing one single type of market also increases chances of better income (households had access to new opportunities (institutional markets, organic markets), and maintained their connection with conventional markets – cooperatives, companies, local businesses, middlemen, fairs) **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**

Infrastructure – Water

- **Access to water resources, a means of sustaining projects' investments** - In the Northeast semi-arid context, assuring water access (e.g. via the construction of cisterns and mobile water treatment stations), is a way to meet households' demand for water for human consumption and production and a means of sustaining projects' investments since water scarcity and the difficulty of accessing it are factors that may prevent success and sustainability. **Productive Development and Capacity-Building Project. IFAD. 2013-2021.**
- **Inter-sectoral collaboration mechanisms are needed in the water sector.** A strong political will is needed to integrate institutions around water resources management and to scale up success stories. The state of Ceará needs to further develop institutional capacity to formulate and implement water resources policies in conjunction with different entities (e.g. agriculture, tourism, urban development, industry etc.), especially to address the water quality challenges, but also the challenges related to dam safety, which require strong inter-sectoral collaboration mechanisms. **Ceará Integrated Water Resources Management Project. WB. 1999-2011**
- The case for **private sector participation (PSP) as the solution to inefficient operation and management of the WSS sector needed more nuanced** and persuasive advocacy at the outset, with greater willingness to consider pluralistic approaches. Currently PSP is widely considered by sector practitioners and most Bank clients as one of a range of options for improved service delivery and performance. Technical Assistance Projects can actively contribute to sector reform, first, by generating solid analytical materials, such as studies and information systems, on which to base decision-making; and second, by promoting national debate on key issues and helping to resolve differences. **BR WATER S.MOD.2. WB. 1998-2008**

- Reform of water resources management is institutionally difficult, and **time is required to agree a consensus on new directions and policies and implement them**. This is doubly difficult in a Federal system of government. In that sense water resources management reform projects do not fit well within the normal Bank's 5–7-year project cycle. Since this project was designed, APLs have been introduced and they may be more appropriate for an evolving reform agenda. An intersectoral approach to water issues is key to the achievement of results that go beyond the WRM agenda. The diversity of Brazil's physical characteristics, socioeconomic realities and institutional structures imposes challenges related to the management and use of water. Renewing its water policies and strengthening investment capacity is essential to ensure that the water sector can make important contributions to the reduction of poverty and inequality, the protection of the environment and the sustainable growth of the economy. **Federal Water Resources Management Project. WB. 1997-2003**
- Systemic institutional reform of the WSS sector requires considerable time, engagement with stakeholders, and patience. Management and financing of water and wastewater services is generally controversial once efficiency considerations influence ownership and management of utilities, particularly in countries with a proactive and well-educated civil society concerned with equity and social safety nets. Several years are needed for results to be evaluated, for findings to be disseminated, and for building consensus on options and preferred alternatives. **BR WATER S.MOD.2. WB. 1998-2008**
- **Water quality issues**. More attention needs to be given to water quality issues as water volume and quality are inextricably linked. In Ceará, reservoirs have been constructed historically to deal with recurrent droughts and assure adequate water quantity, with little or no water quality management objectives. Likewise, the design of Bank financed projects in the water sector did not include specific water quality related objectives. Yet, increased influxes of pollutants, combined with fluctuations in water volume, have contributed to a degradation of the water quality in key reservoirs throughout the state. As water levels fall particularly during droughts, conditions may reach a highly eutrophic state and water becomes unusable precisely when it is most needed. Effective compliance with these safeguards requires: (i) intensive training of implementing agencies staff on Banks safeguard policies, on the content of environmental management plans and on the equivalency of these to local, state and federal requirements, (ii) a well-trained, specialized professional team for planning and supervising environmental mitigation actions, (iii) training of contractor staff in the requirements of environmental action plans before the start of construction and (iv) an effective communication strategy that shares the benefits of the Project with the local affected population and the importance of complying with environmental requirements with the contractors. **Ceará Integrated Water Resources Management Project. WB. 1999-2011**
- Resettlement should provide more than one option for rehabilitation of families (as was the case with irrigated plots in agrovilas) and involve them in the choice of the most suitable alternative. **Ceará Integrated Water Resources Management Project. WB. 1999-2011**
- To ensure that agrovilas are sustainable after the end of the Project and the departure of the Implementing Agency, it is important that the state establish clear institutional arrangements, including with the local governments, regarding access to basic social and infrastructure services. Intensive Bank involvement in

supervision of resettlement and environmental safeguards is indispensable, as effective Borrower attention to these aspects is often limited, particularly where civil society organizations are scarce or absent in representing or safeguarding the interests of displaced persons and of the environment. **Ceará Integrated Water Resources Management Project. WB. 1999-2011**

Land tenure (& infrastructure)

- The impact on stakeholders of changes in land value resulting from infrastructure investments needs to be considered in the design and during the implementation of operations. Provisions should be made to ensure that there would not be short- and long-term adverse effects on vulnerable populations. **Ceará Regional Economic Development: Cidades do Ceará. WB. 2009-2016**
- The community-based approach to land reform, relying on negotiated land sales and community implementation of investment sub-projects, can be an agile and effective mechanism to redistribute land to poor rural families. Even with a simple, beneficiary-driven model, the political and operational aspects of land reform introduce significant risks that potentially can delay or derail the process. **Land-Based Poverty Alleviation Project I. WB. 2000-2008**

Investments

- A set of subsidized investment policies, often providing non-repayable resources, can be important to disseminate some of the practices dealt with under a project (e.g. disseminating small irrigated areas across the semi-arid region). However, there is ample evidence that resources are generally channelled to other uses, which households consider more pressing (e.g. funds used to buy food for animals or to rebuild herds). **The bank should ultimately define what items may or may not be funded and choose what lines of credit will be given priority.** There is also a need for programmes to offer “incentives” to enhance the use of sustainable practices and to give sufficient attention to sustainable proposals. The more “urgent” and emblematic case is caatinga management, as there is a need for funds to fence the areas. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- Follow-up monitoring of small-scale project investments is feasible notably through the imaginative use of modern technology, such as GPS data bases. **Rural Poverty Reduction Project -Ceará. WB. 2001-2009**

TA

- Both “capacity-building”, to cover the training aspects, and “environmental incentives,” are needed to support the implementation and adoption of new practices. Implementing and disseminating sustainable practices requires offering stakeholders the necessary information and training, as well as **funds to finance investments** required by such practices (e.g. set up an irrigated area that enables the installation and management of an agroecological vegetable garden and/or orchard; investment in fencing for a managed caatinga area). Even agroecological fields require some resources to be put in place. **Sustainable Development**

Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009

- **A combination of TA and transfer of non-reimbursable resources can successfully promote climate change adaptation practices.** TA, in particular when accompanied by fomento (Rural Development Programme of the Ministry of Social Development (MDS), which combines two actions: social and productive monitoring and the transfer of non-reimbursable resources directly to beneficiary families to invest in productive projects) was crucial in promoting the adoption of climate change adaptation practices in small-scale production systems in North-Eastern Brazil. Whilst the small amount of the foment limited investment in certain more expensive adaptive technologies such as cisterns and biodigesters, the TA enabled farmers to use locally available resources in a more efficient and integrated way in their production systems. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- **TA associated with productive investment** - The receipt of the Promotion of the Ministry of Citizenship (non-refundable social transfer of R\$ 2,400 per family, intended to support productive projects prepared and monitored by TA) by the beneficiary families of PDHC has shown positive effect and enhancement of services. At the programmatic level, **it is relevant to associate TA services with resources for productive investments by the beneficiary family.** At the institutional level, IFAD should continue to seek integration between MAPA's Family Farming strategies and the Ministry of Citizenship's food security and socio-productive inclusion strategies, especially when working with the poorest and most vulnerable families. Advantages exist for both ministries. For MAPA, TA has more impact with small investment resources than the exclusive TA. The Ministry of Citizenship can only carry out the Promotion if it has complementary TA. In total, coordinated action increases the economic independence of the poorest families and reduces their dependence on social transfers. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- The transition to agroecological systems is a long process and, depending on the starting point of the beneficiaries, requires longer-term support. Increasing the amount of TA provided to each family (currently 4-5 visits) and providing regular training to the technical assistance providers to ensure consistent consideration of climate risks and promotion of appropriate adaptation strategies are opportunities for enhancement for future projects. Capacities of participating TA institutions in agroecological adaptation practices vary. Regular training would ensure a levelling of knowledge. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- TA should be demand-driven to enable its contents to be shaped to the specific needs, capacities and interests of the beneficiary families. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- "Capacity-building efforts" through a "multiple" advice system were able to develop a focused and very efficient process of experimentation and training. This process was associated with the allocation of resources from the FIA and other sources, particularly in the Project's final years. Market access and increased income were also important factors to encourage households. **Sustainable Development**

Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009

- **TA Management System – SGA.** ANATER Management System (Sistema de Gestão ANATER - SGA) is an extremely important tool for monitoring actions in the field, as it is a 100% digital system and, as it is a tool used at the federal level, it can be a valuable support in future projects. However, adjustments and improvements need to be made to become 100% aligned with projects' demands. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- **Valuing the accumulation of knowledge by CTA entities** in agroecological experiences, innovations, gender training that and local knowledge **can accelerate project's start-up and assure efficiency and ownership.** In such cases, methodological approaches, to strengthen the construction of a sustainable Technical Assistance and Rural Extension model can be focused on the principles of agroecology through participatory processes, ensuring effective participation of people and strengthening traditional knowledge. Allowing community associations to perform their accountability through digital means (e.g., the state system called epartnerships) also accelerated the management process of the agreement. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- Project pre-Financing Facility's (PFF) high-quality Technical Assistance on agroecology and the sustainable management of natural resources, and its participatory and critical-reflexive approach are vital for addressing beneficiaries' real needs and demands, maximizing the project's impacts, and ensuring greater sustainability. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- Implementing formative processes play a fundamental role in Projects based on a capacity-building approach (in in topics such as Agroecology, Solidarity Economy, Coexistence with the Semi-arid, Gender Relations, Race and Ethnicity, and Rural Youth Inclusion), guaranteeing greater sustainability, ownership, and impact. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- Study tours can foster cooperation among institutions through building stronger personal relationships among key stakeholders; fostering of collective commitment to achieve a shared goal and learning about different approaches for institutions within and across government levels. **BR Federal Integrated Water – Interaguas. WB. 2011-2018**
- Continuous dialogue with stakeholders, framed around medium-term outcomes and backed by periodic progress monitoring facilitates understanding of dependencies and trade-offs among sectors, and provides a holistic view of challenges. It also enables leveraging progress in related operations by incorporating their performance improvement into disbursement-linked indicators. **BR Ceará Inclusive Growth (SWAp II). WB. 2008-2012**
- Don't provide loans for technical assistance that are significantly too large, especially when the political and economic situation, lead to high risk of low disbursement. **BR Federal Integrated Water – Interaguas. WB. 2011-2018**

KM & dissemination

- Strategic planning of Knowledge Management (KM) is crucial for capturing good practices and extracting lessons to enhance work processes during project implementation. IFAD grant projects are instrumental in building PMU teams' KM capacities and introducing innovations. The PMU must lead in strategically selecting KM products from various decentralized execution arrangements, prioritizing high impact sharing and replicability. Emphasis should be on avoiding content overlap, prioritizing innovative products across IFAD's core themes (gender, youth, environmental sustainability, and climate change). The PMU is also tasked with monitoring the preparation of KM products to ensure quality and timely delivery. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- The Sertão Project accumulated of valuable learning resources (courses, textbooks) on implementation of new sustainable production practices, helpful to disseminate good practises and which could support new initiatives. Partner organizations and their technical teams are also a social capital that can be mobilized in the future. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**
- A clear synergy between KM and Communication ensures the adequate selection of target audiences, formats, and effective means to maximize the dissemination of Projects´ main results and lessons learned. Partnership with IFAD knowledge management grants, also assured complementarity, potentialized resources, and allowed knowledge exchanges between projects. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- Environmental monitoring and studies on economic aspects, production and environmental practises validate proposals, assist in raising awareness among adopting households, help to disseminate the practises and are crucial tools for shaping public policies. To amplify results, consolidating them in a publication with farmer testimonials could support social organizations (Unions and Federations of Rural Workers, Community Associations and groups of farmers) when making their claims and taking part in public policy debates. **Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East. IFAD. 2000-2009**

Youth

- **Partnerships for youth inclusion.** Establishing a network of partnerships supporting rural youth inclusion (e.g. caravans and festivals, with different public institutions working for the social inclusion of young people) can be key for assuring the sustainability of youth empowerment initiatives and influencing public policies focusing on rural youth. Building multisectoral networks and partnerships can maximize the effectiveness and sustainability of youth empowerment initiatives. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- **Comprehensive youth inclusion strategy and action plan oriented articulated interventions** that empowered youth economically and politically, can ensure their permanence in the rural areas. Youth inclusion success can be attributed to different aspects: a) Specialized Youth Technical Assistance; b) Comprehensive Youth Strategy and Action Plan; c) Sensibilizing Continuous Technical Assistance teams on youth-related themes; d) Strengthening "youth"

agendas through media, and communication techniques; e) Youth-focused Productive Investment Plans; f) Supporting youth networking, self-organization, and political participation; g) Strategic use of communication tools and instruments in times of the Covid-19 pandemic.

PPF's experience offers different lessons: i) the necessity to define targeted and specific investments for youth inclusion in PIPs; ii) the use of social media as a tool for attracting youth and fostering innovative commercialization practices; iii) training and strengthening youth groups and leaderships; iv) plan for fostering youth inclusion in associations, unions, and other decision-making spaces; v) keeping youth mobilized and connected during the Covid-19 pandemic through the strategy of holding weekly online dialogues; vi) creating the Semi arid Youth Network as a space for youth social and political action in debates and promotion of public policies for rural youth.

Providing capacity building to youth should be complemented with productive investments and political empowerment initiatives for an effective policy that allows this group to remain in rural areas. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**

Indigenous People

- Strong IPTC community engagement during the design and implementation of the project requires more time, training and continuous technical support but can lead to sustainability of project outcomes, especially in the area of land use, land and forest management, and mitigation of and adoption to climate change. For instance, early stakeholder involvement ensured unquestioned acceptance of NEA's design and rules. Empowering IPTC communities to execute their own sub-projects can also result in them becoming key actors in the field, acting in unity across ethnic diversity and geographical distances, and as guardians of the natural resources of the territory they live in. **BR DGM for Indigenous People and Traditional Communities. WB. 2015-2022**

Gender

- **Agroecological Logbooks (AL)**, by expanding the visibility of women as productive, political and economic subjects, constitute an effective political-pedagogical instrument in the empowerment and autonomy of women. They are also effective instruments for monitoring and evaluating the results of projects, programs, and public policies. However, it is necessary to scale up the number of women using AL for a more expressive result, as well as to have a specific plan to guarantee the continuity of their use. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- **Gender commissions**, formed through political dialogue, enhance the effectiveness and efficiency of women's empowerment initiatives. Ensuring the persistence of these entities post-project, possibly through institutionalization, is crucial. They serve as key integrators, sharing processes across communities, Technical Assistance providers, and Project Management Units. The commissions improve understanding of women's realities, evaluate action feasibility, and align methodologies, fostering knowledge exchange. These institutional structures offer political-professional training, empowering members to navigate structural

challenges. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**

- Gender-, youth-, and indigenous peoples/traditional communities-related aspects should be seamlessly integrated into everyday activities rather than treated as exceptions. These aspects should be incorporated as indicators in project processes and products whenever feasible. Additionally, efforts should be made to include women in project teams. **Reversing Desertification Process in Susceptible Areas of Brazil: Sustainable Agroforestry Practices and Biodiversity Conservation. FAO. 2018-2022**

Microfinance

- Establishing an independent microfinance institution within a public sector bank can offer benefits, but political influence remains a concern. The challenge lies in isolating the 'independent' microfinance program, especially in subsidized public sector financial environments. Tensions about the extent to which public or private sector principles apply persist. Sustainability conflicts may arise between expanding outreach and financial stability, and the decision to stay engaged often hinges on outreach achievements rather than long-term sustainability. Transparency, measured through a well-defined Subsidy Dependence Index, can aid sustainability, although incorporating measure of subsidies into funding poses challenges. Institutional aspects are crucial, but national economic policies also impact financial service delivery to microenterprises, and well-managed institutions may face sustainability issues if economic environments contain financial market distortions. **Northeast Microfinance Development Project. WB. 2000-2007**
- Donors such as the Bank can add value by setting benchmarks consistent with international best practice and putting the client institution in contact with top practitioners in each field. **Northeast Microfinance Development Project. WB. 2000-2007**

M&E and supervision

- **Monitoring Food and Nutritional Security.** The PDHC's impact assessment, includes a comprehensive analysis of Food and Nutritional Security tailored to the Brazilian context, which can serve as a reference for other IFAD projects. It combines questions from the Brazilian Food Insecurity Scale (EBIA) measured by the IBGE Family Budget Survey (POF) with the dietary diversity indicator. This enables the comparison of historical data and facilitates an analysis of sufficient micronutrient intake, providing valuable information to measure the Project's impact in addressing the triple burden of malnutrition. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- Projects should ensure the planning and implementation of a monitoring system with the provision of regular feedback and the implementation of corrective measures from the beginning of the intervention. **Strengthening national policy and knowledge framework in support of sustainable management of Brazil's forest resources. FAO. 2011-2019**

- Bank projects of this nature, especially complex GEF operations, should not be initiated until fully developed baseline information has been established and full sets of carefully selected, field tested indicators, with appropriate protocols, have been identified. Caatinga Conservation and Management - Mata Branca - (GEF). WB. 2007-2013
- For projects in which execution decentralization is chosen, which implies complying with national regulations and not those of the financing agent, it is of paramount importance that the borrower, seeks shared management means to have governance over the progress of the execution, striving for quality in the provision of services. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- Outsourcing of certain project implementation functions holds out the promise of advantages, such as economies of scale and reducing the burden on government agencies. But outsourcing of procurement also entails risks including significant delays in project implementation. **BR ENVIRONMENTAL SUSTAINABILITY AGENDA TAL. WB. 2005-2011.**
- Monitoring arrangements and performance under a Federally-financed project implemented at the State and local levels requires close supervision to ensure that key data are collected, stored and transmitted regularly for aggregation, and that they are closely linked with the analyses to be undertaken. **Land-Based Poverty Alleviation Project I. WB. 2000-2008**

Working with multiple partners & partnerships; Ownership

- When project implementation includes more than one autonomous ministry or several agencies, it is critical that that one entity with general authority takes on the responsibility to coordinate among all participating entities. It is important that responsibilities for Financial Management and Procurement are defined during project preparation and capacity building activities are conducted if necessary. **BR Federal Integrated Water – Interaguas. WB. 2011-2018.**
- Budget definition. It is politically difficult for project managers to reallocate resources from one ministry or agency to another. Therefore, it is crucial for projects involving different agencies to define upfront mechanisms and actions to be taken in order to make there allocation process clearer and more objective. BR ENVIRONMENTAL SUSTAINABILITY AGENDA TAL. WB. 2005-2011.
- Multiple Project Implementation Units within different state agencies can limit project ownership and increase risks associated with separate & disconnected activities. **Strengthening Public Management and Integrated Territorial Development. WB. 2014-2017**
- Incentives for effective cross-sector collaboration including common rationale may be useful for addressing coordination problems in projects dealing with multi sectors. **Strengthening Public Management and Integrated Territorial Development. WB. 2014-2017**
- IFAD's effort in political dialogue and monitoring of the process, providing suggestions and supporting the resolution of any difficulties can contribute to improve project performance. In addition, IFAD's targeting themes had a more significant impact on MAPA's policies and decisions, as is the case with the theme of rural women and prioritization of the poorest and most vulnerable public

(CadÚnico). **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**

- Coordination - With complex, multi-party, multi-jurisdictional operations involving multiple sub-projects, thorough appraisal of political and cultural aspects in project preparation is needed. **Caatinga Conservation and Management - Mata Branca - (GEF). WB. 2007-2013**
- Funding agency's capacity to act as an honest broker, bringing together key institutions to improve the policy-making process and to support the mainstreaming of environmental concerns indifferent sectoral agendas is key to success. **BR ENVIRONMENTAL SUSTAINABILITY AGENDA TAL. WB. 2005-2011**
- Alliances and partnerships with a series of strategic actors, among which ANATER can contribute to improve project performance. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**
- Government ownership is paramount to ensure commitment, in particular by the relevant sector ministry, to the project's objectives. Ownership is also important to ensure that the allocated resources continue to fund relevant issues and that outputs translate into policy decisions and eventually to progress on outcomes. **BR ENVIRONMENTAL SUSTAINABILITY AGENDA TAL. WB. 2005-2011.**

Targeting

- Targeting of benefits to the poorest requires an operational strategy to reach them through mobilization and organization which enables them from the outset to access the project on a more equal footing . Systematic consultation and information dissemination should be initiated before project effectiveness. **Rural Poverty Reduction Project -Ceará. WB. 2001-2009.**
- To ensure efficient execution of economic inclusion projects, analytics requires sufficient preparation and dedicated resources to conduct a realistic assessment of target beneficiaries, the capacity of supporting institutions and the operational context. Rigorous selection criteria combined with technical expertise which hones in on building the organizational and business skills (and social cohesion) needed for PO growth and survival. Well programmed, tailored interventions that equalize to the extent possible, access to project opportunities and potential to succeed are needed for PO growth and survival. Agri-business marketing expertise in the Bank and Borrower teams is also essential to provide necessary support during implementation. **Ceará Rural Sustainable Development and Competitiveness. WB. 2012-2019**
- Establishing local participatory committees can ensure effective targeting and guarantee a greater level of commitment from beneficiaries. **Productive Development and Capacity-Building Project. IFAD. 2013-2021**
- Importance of the participation of the Ministry of Social Development (MDS) in identifying target groups, using its database to prioritize municipalities and families, thus ensuring homogeneity the criteria applied in all States and transparency. However, measures must be applied to mitigate the risk that, within communities, the application of this methodology selects only a few families, segregating the rest

that does not "exactly" meet the established criteria, with a consequent risk of and weakening of the local social fabric. **Policy Coordination and Dialogue for Reducing Poverty and Inequalities in Semi-Arid North-east Brazil. IFAD. 2014-2024**

Flexibility

- Flexibility in supervision to adapt to changing scenarios is essential for success, both when the changes are marginal and when they are fundamental to the point of rendering the attainment of the operation objectives impossible. In some occurrences, flexibility must be manifest in the willingness to sacrifice details for the sake of achieving the ultimate objectives of the operation. **Northeast Microfinance Development Project. WB. 2000-2007**
- Working with small, poor communities in remote rural regions entails a series of constraints which may merit greater flexibility and creativity in the approach taken to applying Bank standards. **Land-Based Poverty Alleviation Project I. WB. 2000-2008**
- The use of waivers can provide flexibility in responding to situations where targets or conditions are not met, as long as broader sector goals are still being achieved. Using disbursement-linked indicators can sharpen the project team's focus on producing results; however, project activities that are not linked to disbursement may not receive adequate attention. A state-level (within a federal government system) project can work if the key participants have the authority to make decisions, namely with regards to control over sector expenditures. **Ceará Multi-sector Social Inclusion Development. WB. 2005-2007**
- The scope of TA projects linked to policy reforms should be broad and have the flexibility to adapt to evolving challenges and priority changes while activities remain relevant and continue to serve the Program Development Objective. **BR ENVIRONMENTAL SUSTAINABILITY AGENDA TAL. WB. 2005-2011.**
- The Bank can help in building lasting reforms by limiting the scope of the projects to what can be accomplished within a certain political and economic environment, even if not fully market-oriented. Nevertheless, it must be cognizant of the fact that the environment is fragile and may depart further from market-based principles. **Northeast Microfinance Development Project. WB. 2000-2007**

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: D Grievance Redress Mechanism

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Latin America and the Caribbean
Programme Management Department

Brazil

**CAPACITY DEVELOPMENT FOR OVERCOMING HUNGER AND MITIGATING
THE EFFECTS OF RURAL POVERTY AND EXTREME POVERTY – PAULO FREIRE
II**

ANNEX D

Grievance and Redress Mechanism (GRM)

Key terms definition

Affected Party(ies): Stakeholders who are affected by the project, both positively and negatively. Within this it is possible to distinguish between those that are directly affected and indirectly affected by the project.

Environmental and Social Impact Assessment: Process of evaluating and addressing potential social and environmental adverse impacts resulting from SDA-CE's project and identifying any mitigation or corrective measures that will enable the project to meet the requirements of the IFAD Social and Environmental Procedures (SECAP) and Brazilian laws and regulations.

Grievance: An issue, concern, problem, or claim (perceived or actual) that an individual or community group wants the IFAD, project executing agency, or contractor to address and resolve.

Grievance Database System: A database for logging and monitoring all grievances received, including any records of communication/consultation and details of grievance settlement.

Records of communication / consultation Records of communication / consultation may include key emails, letters, newsletters, memorandums, complaints, opportunities for improvement, records of distribution/attendance, records of formal and informal meetings and records of commitments.

Stakeholder: Persons or groups that are directly or indirectly affected by a project as well as those that may have interests in a project and/or the ability to influence its outcome, either positively or negatively. This can refer to shareholders, lenders, employees, communities, industry, governments and international third parties.

Stakeholder engagement: An umbrella term encompassing a range of activities and interactions between SDA-CE and stakeholders (two-way communication) over the life of a project that are designated to promote transparent, accountable, positive, and mutually beneficial working relationships.

Vulnerable Groups Individuals or groups: within the project area of influence who could experience adverse impacts more severely than others based on their vulnerable or disadvantaged status. This vulnerability may be due to an individual's or group's ethnicity, gender, language, religion, political views, dependence on natural resources, sickness or disability or other factors.

Introduction

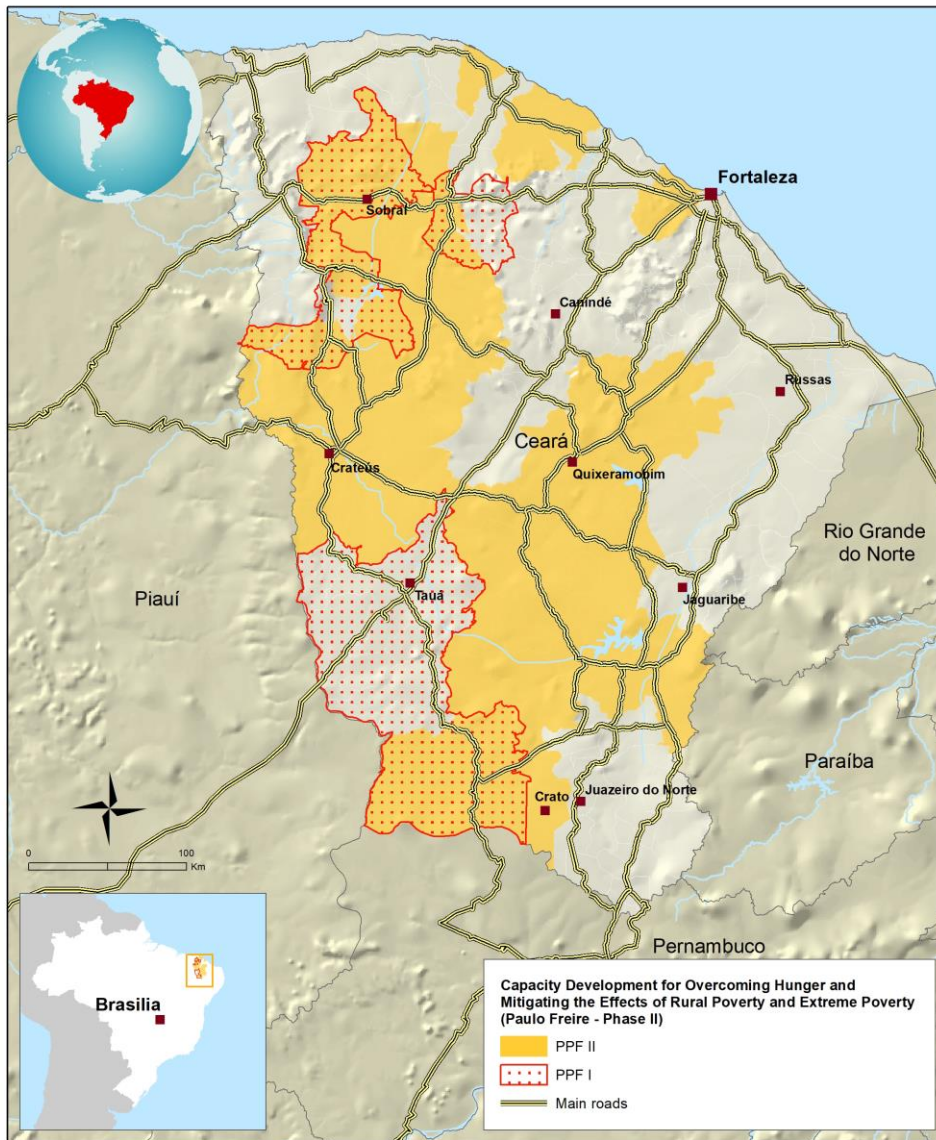
1. The Project's goal is to reduce rural poverty and food insecurity and malnutrition in family farming. The development objective is to increase the sustainability of production systems and the resilience of family farmers.

2. Currently, production systems are characterized by low productivity, lack of diversification, increasing degradation of natural resources and high levels of vulnerability to climate change, especially drought. They face various social, generational, and racial-ethnic inclusion gaps, which results in a perpetuation of poverty, vulnerability, food insecurity and malnutrition. There are few opportunities for family farmers to access technology, services and markets that are adapted and respond to the development of sustainably produced food, bringing employment opportunities. To address these challenges, the project will work along three development paths that will lead to project results and help achieve its goal:

- i. Improve rural families and farmers organizations (FOs) food production systems and nutrition, allowing them to access new markets and increase sales, while encouraging innovation and youth employment.
- ii. Ensure that rural families and communities increase their access to water and sanitation through social technologies.
- iii. Strengthen capacities and empower young people, women, traditional peoples, communities, and LGBTQIAP+ groups.

3. The project will cover all 175 municipalities in the semiarid region of the state of Ceará but will focus its interventions on 74 priority municipalities. The selected area will consist of new intervention areas, with a combination of some territories of the previous phase that will serve as model and reference for replication of experiences and consolidation of their achievements. The municipalities will be selected based on the Municipal Alertness Index (IMA), developed by IPECE, which combines 12 indicators to measure the vulnerability of municipalities to climatological, agricultural, and social assistance issues. It will also consider reference experiences for scaling-up innovative approaches and practices.

4. The map below shows the area of Project:



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 11-04-2024

1. PPF II is structured in three components:

Component 1 - Rural development with environmental sustainability based on agroecology

5. Component 1 aims to implement investments for the development, diversification, and adaptation of family productive capacity, with actions carried out to promote and encourage the adoption of agroecological practices and the conservation and preservation of natural resources. It also aims to improve the structure and capabilities of agricultural product processing units, to enhance marketing (cooperatives and others). It will also support cross-project actions on the themes of gender, youth, traditional peoples and communities (PCTs), and nutrition. This component is subdivided into three sub-components: 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty; 1.2.

Strengthening the Marketing and Processing of Family Farming Products; 1.3. Gender, Youth, and Food and Nutrition. Its main activities include:

- i. Implement Local Rural Development Plans (PD) for family farmers, farmer organizations (FOs), and/or collective use, including PD specifically targeting women and youth.
- ii. Environmental PDs implementing collective management of natural resources, promoting restoration of degraded areas, protecting water sources, building seed banks, etc.
- iii. Strengthen existing small cooperatives to improve the processing and marketing of family farming products;
- iv. Developing new market access and marketing channels to bring agroecological products to market;
- v. Carry out land and environmental regularization; and
- vi. Promote the empowerment of women and young people, as well as improving the nutrition of beneficiary families.

Component 2: Water security, sanitation, and social technologies

6. The objective of this component is to make investments in water for domestic use and agricultural production, household sewage and renewable energy. It will also raise awareness about good practices in the use of water, hygiene, and sanitation as a means to have a greater impact on the nutritional security of the community. Small infrastructures for access and storage of water for agricultural production will be implemented through this component. Whether for community or family use, the investments will guarantee access to water of better regularity and quality, in addition to reducing soil and water contamination with waste produced in family units. Practices and technologies for the rational use of water will be introduced with a focus on climate change adaptation. To contribute to the construction of innovative solutions, the Component will finance the dissemination of innovations developed by local micro entrepreneurs and public agencies. This component is subdivided into 2 subcomponents: 2.1. Rural Community Basic Sanitation; 2.2. Social Technology for Access to Water and Support for Production.

2. Its main actions include:

- i. Implement rural community and family basic sanitation, including social technologies for access to water for human consumption and agricultural production such as cisterns for rainwater harvesting, technologies for wastewater treatment and reuse;
- ii. Building biodigesters and eco-efficient stoves.
- iii. Financing the implementation of innovative solutions customized for the local context, such as specific tools and equipment for small-scale agroecological systems (e.g., agroforestry mechanization), nurseries, composting services, organic fertilizer production, products for pest control, processing machines for cooperatives and associations, products derived from native/traditional species, renewable energy, etc.

Component 3: Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

7. This component will be grant-funded (100% AECID grant resources) and will aim to promote capacity building among small producers and TA (Technical Assistance) teams, foster environmental and nutrition education to ensure food and nutrition security in rural communities, and implement sustainable and inclusive

technologies and innovations adapted to the semiarid environment. Replicable pilot projects will be developed, and exchanges organized, following the Triangular and South-South Cooperation (SSTC) model. It also aims to provide support to the PMU (Project Management Unit) to strengthen the state's institutional capacity to implement PPF II. This component is subdivided into 5 sub-components: 3.1. Capacity building of family farmers and rural extension teams (Technical Assistance, TA); 3.2. Promoting environmental and climate education with a gender focus in rural schools; 3.3. Promotion of research on technology and implementation of pilot projects; 3.4. Knowledge Management (KM) and South-South and Triangular Cooperation (SSTC); and 3.5. Strengthening the PMU (Project Management Unit) for to implement and monitor activities.

3. Its main activities include:

- i. Strengthening TA service on participatory methodologies, agroecological techniques, climate resilience, nutrition, desertification, biodiversity, and social inclusion;
- ii. Provide continuous TA for the development of sustainable food production systems, for the identification, design, and implementation of Component 1 and 2 actions. Through TA, technical support will be offered to beneficiaries to improve nutritional practices, agroecological production, safe processing, and conservation of local foods with the potential to improve the micronutrient profile of diets;
- iii. Provide STA to strengthen organizational capacities and the processing and marketing of small cooperatives;
- iv. Digital TA to complement continuous TA for knowledge and innovation;
- v. Promote environmental and climate education with a gender focus in rural schools;
- vi. Promote technological research and implementation of pilot projects;
- vii. Implementation of KM and communication strategies;
- viii. Organize SSTC events and exchanges; and
- ix. Strengthening the PMU for implementing and monitoring activities.

Project Management, Monitoring and Evaluation (M&E), Knowledge Management and SSTC

8. A Project Management Unit (PMU) will be set up at the Ceará State Government's Secretariat for Agrarian Development (SDA) and will be responsible for project implementation, as well as carrying out technical coordination, managing socio-environmental safeguards, financial management, audits and monitoring and evaluation (M&E).

The Grievance and Redress Mechanism (GRM)

9. IFAD requires that all borrowers/recipients/partners adopt an easily accessible grievance mechanism and redress mechanism (GRM) at project-level to receive and resolve concerns and complaints of stakeholders and interest parties who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related IFAD policies.

10. Furthermore, IFAD requires borrowers/recipients/partners to inform project-affected people about the existence and functioning of this GRM in any easily understandable form and language, and to integrate it into the overall community engagement and project communication strategies. Project-affected parties may use

the grievance mechanism without fear of retribution or reprisal, and the grievance mechanism should not impede access to other judicial or administrative remedies available under national law or through existing arbitration procedures or other accountability mechanisms. Project staff should inform project-affected people about the GRM resources and about judicial and administrative remedies available to them. These include IFAD's enhanced complaints procedures mentioned below.

11. The IFAD has established a complaints procedure to receive and facilitate the resolution of concerns and complaints regarding alleged non-compliance of its environmental and social policies, and the mandatory aspects of SECAP in the context of IFAD-supported projects.

12. For all projects, IFAD requires borrowers/recipients/partners to inform all affected people about the IFAD complaints procedure in a form and language understandable to them. Thus, complaints can also be submitted through IFAD's Complaints Procedure, which allows individuals and communities to contact IFAD directly and make a complaint if they believe they are or may be adversely affected by an IFAD-funded project that does not comply with IFAD's Social and Environmental Policies and their mandatory aspects. The procedure enables complainants' concerns to be resolved in a fair and timely manner through an independent process, via e-mail at SECAPcomplaints@ifad.org, IFAD's Website or by post.

13. In accordance with IFAD's environmental and social policies, a public and accessible complaints and redress mechanism (GRM) is to be made available to the Project's target groups for individuals or community representatives affected by the implementation of the Project. The Project will therefore set up and manage a system for receiving and handling complaints and denunciations with the adoption of an Ombudsman channel by SDA-CE.

14. SDA-CE must promote an ongoing program of dissemination of integrity policies, as well as training and guidance on the use of whistleblowing tools for the communities and beneficiaries of the Project. All people potentially affected by the Project's activities will be informed and given clear instructions on what procedures should be followed for registering reports and complaints. This information will be made available in plain language through adequate communication channels.

15. In line with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), the Project will ensure that adequate safeguard measures are in place for a safe and harassment-free working environment, including sexual harassment and free from sexual exploitation and abuse in its activities and operations. Any complaints of sexual harassment, sexual exploitation or abuse received through the complaint's procedure will be forwarded immediately to IFAD's Ethics Office for further action through the channels below:

To report misconduct

Direct helpline: +39 06 5459 2525

Mobile phone number (WhatsApp-enabled): +39 338 738 0924

<https://www.ifad.org/en/ethics>

Anonymous Formal Complaint

You may also file an anonymous complaint using the form in English, French, or Spanish. You may also scan the below QR codes and access the forms (<https://www.ifad.org/en/ethics>). IFAD may be limited in its

ability to act upon an anonymous complaint. If the complainant chooses to do so, it must be informed to make sure to include as many details and evidence as possible.

OMBUDSMAN OF THE STATE OF CEARÁ

16. The Ombudsman Policy of the State of Ceará (<https://www.sda.ce.gov.br/2014/08/26/ouvidoria/>) aims to foster the participation of society and the exercise of social control, ensuring the right to citizenship and transparency in the services provided by the State Executive Branch, acting ethically, fairly, and impartially, by listening impartially to the parties involved, preserving the citizen's right to free expression and judgment.

17. In this sense, the Ombudsman's Office acts as a channel for mediating the process of popular participation, enabling citizens to contribute to the implementation of public policies and the evaluation of the services provided.

18. The Ombudsman Network is made up of the Sectoral Ombudsman Offices of the bodies and entities of the State Executive Branch, which are responsible for investigating and responding to citizen complaints. It is based on the principles of horizontality and decentralization of processes, acting as an intermediary between citizens and the institutions in which they operate, providing a channel of communication.

19. The Ceará State Ombudsman Network is made up of 66 Sectoral Ombudsman Offices, distributed in each body or entity of the State Government. It also has the regulated internal network of the Health Secretariat - SESA, with 55 ombudsmen distributed in health care units, Regional Health Coordinators (part of SESA's organizational structure), health care units qualified as social organizations and health care units of public consortia.

ACCESS CHANNELS FOR CITIZENS

20. The State Comptroller and Ombudsman's Office (CGE) provides free channels of service to citizens, aimed at exercising social control and promoting public policies, making available telephone resources, the World Wide Web and face-to-face service, in order to make it possible to swiftly receive and record the manifestations presented, such as: suggestions, compliments, complaints, criticisms, denunciations, requests for services and information pertinent to the State Executive Branch. These include:

- The Ombudsman System (www.ouvidoria.ce.gov.br) that may be used by any citizen to voice concerns or complaints.
- Social networks (Facebook and Twitter)
- Email: ouvidoria.geral@cge.ce.gov.br

21. In addition to the aforementioned channels, the State Comptroller and Ombudsman's Office (CGE) provides citizens with face-to-face or correspondence services. In-person services can be sought at the CGE's headquarters or at any body or entity of the State Executive Branch.

CGE address: Av. General Afonso Albuquerque Lima - Edifício SEPLAG - 2ºAndar - 60.822-325 - Cambéba, Fortaleza - CE.

PURPOSE

22. The purpose of this Grievance Redress Mechanism is to outline the SDA-CE's approach to accepting, assessing, resolving, and monitoring grievances from those affected by SDA-CE's, and its Contractors', activities in relation to the Project. The aim is to identify and manage grievances from individual stakeholders or stakeholder groups. Timely redress or resolution of such grievances is vital to ensure successful implementation of the project. If well-handled, an effective grievance redress mechanism can help foster positive relationships and build trust with stakeholders.

23. Grievances can encompass minor concerns as well as serious or long-term issues. They might be felt and expressed by a variety of parties including individuals, groups, communities, entities, or other parties affected or likely to be affected by the social or environmental impacts of the project. It is essential to have a robust and credible mechanism to systematically handle and resolve any complaints that might arise in order that they do not escalate and present a risk to operations or the reputation of the IFAD (nationally or internationally).

SCOPE

24. This Grievance Redress Mechanism will be applied to stakeholder complaints and grievances, perceived or actual, which relate to the activities of the SDA-CE and its Contractors undertaken regarding the project. A complaint or grievance is an issue, concern, problem, or claim (perceived or actual) that an individual stakeholder or community group has related to SDA-CE and its contractors' operations and activities. The mechanism does not impede access to judicial or administrative resolutions. An issue, concern, problem, or claim (perceived or actual) that an individual stakeholder or community group has but that is deemed to be unrelated to SDA-CE and its contractors' operations and activities is not considered eligible for GRM processing. In such cases the complainant must be informed on why the claim is not considered eligible and what are the eventual channels and public policies that are applicable to the situation.

VALUES

25. This Grievance Redress Mechanism provides guidance to all SDA-CE employees and Contractors on receiving, registering, assessing, and resolving community complaints or grievances emanating from SDA-CE's operations and activities in relation to the Project. The fundamental objective of this mechanism is to:

- Provide a predictable, transparent, and credible process to all parties for resolving grievances, resulting in outcomes that are seen as fair, effective, and lasting.
- Build trust as an integral component of broader community relations activities; and
- Enable more systematic identification of emerging issues and trends, facilitating corrective action and pre-emptive engagement.

26. To maximize the effectiveness of the Grievance Redress Mechanism, SDA-CE shall uphold the following values during implementation and operation of the system:

- Transparency.
- Full documentation of all procedures.
- Commitment to fairness in both process and outcomes.

- Freedom from reprisal for all involved parties – within SDA-CE and in the external stakeholder group.
 - Clear operating rules, and accountability.
 - Presumption of validity of all complaints submitted.
 - Provision of culturally adequate and readily accessible information.
 - Assurance of accessibility to vulnerable groups of stakeholders; and
 - Confidentiality if requested.
27. The following resources will also need to be in place:
- An auditable system for receipt, recording and tracking of the process (for example a grievance log and database at minimum) shall be in place.
 - Dedicated budget and staffing for Grievance Redress Mechanism and addressing grievances through financial or in-kind compensation as and when needed.

PROCEDURES

28. A Grievance Redress Mechanism must be a simple process whereby stakeholders can submit their complaints free of charge and, if necessary, anonymously or via third parties. It should allow complaints to be submitted in more than one format. The following steps outline the process that may be followed to resolve a grievance. This process is presented in the below table and all (suggested) grievance forms are presented in Appendix.

29. The process of reporting a grievance should be easily accessible and un intimidating to any stakeholder. The preferred channels for reporting grievances (e.g., through the heads of associations or cooperatives) can be discussed with the community as part of community engagement. Following the establishment of the channels above, the method for addressing grievances is systematic and is divided into six key steps. These are as follows:

- **Step 1: Receive and log grievance:** this may be done orally or through any communication channels available (instant messaging, email, telephone, letter, etc.). Upon receipt a claim number must be assigned to the claim;
- **Step 2: Acknowledge grievance:** upon receipt of the claim, SDA-CE must acknowledge to the complainant that it has received and acknowledged the claim, assigning a number to it, and indicate the procedures and time frame for addressing it;
- **Step 3: Assess and Investigate:** SDA-CE will assess the eligibility (whether the claim is related to the project), severity and that take the necessary measures to a fair investigation of the reported issue;
- **Step 4: Grievance Resolution;** following the investigation step SDA-CE will agree with the complainant on the remedies to address the problem. SDA-CE will inform the complainant about the time frame of the solution and about the alternatives if a mutually agreeable solution to both parties (SDA-CE and complainant) is not achieved.
- **Step 5: Sign-off on grievance:** if a mutually agreeable settlement is reached both parties will sign-off on the grievance. The date and sign-off will be stored in the GRM database; and
- **Step 6: Monitor:** using the GRM database SDA-CE will monitor the settlement of the present issue to assess the compliance with all the eventual agreements between the parties and to identify whether the issue is recurrent, therefore taking the necessary corrective measure to ensure a smooth project implementation.

30. All the above steps must be documented and reported on in the periodic project implementation reports.

Process	Description	Lead time (max)
Step 1: Receive and log grievance.	<ul style="list-style-type: none"> • Face to face meeting with stakeholder. • Phones, fax, letter, email, or SMS. • Recorded by <u>SDA-CE</u> staff. • Completion and submission of grievance form. • Record grievance in Grievance Form and log Grievance Database. 	1. days
Step 2: Acknowledge grievance.	Receipt of grievance acknowledged through appropriate communication medium to be recorded in writing.	5 days
Step 3: Assess and investigate.	<ul style="list-style-type: none"> • SDA-CE officer to assess and assign grievance significance. • Consult with relevant parties. • May require site visits and discussions with other stakeholders! 	20 weeks
Step 4: Grievance Resolution.	<ul style="list-style-type: none"> • Identify further actions required. • Response provided to complainant including, if necessary, an indication of additional time and resources required to resolve grievance 	
Step 5: Sign-off on grievance.	<ul style="list-style-type: none"> • Determine with the complainant If the grievance is to be closed. • If the grievance is to be closed, grievance sign-off is required. 	30 days
Step 6: Monitor.	<ul style="list-style-type: none"> • Record final sign-off of grievance. • If a grievance cannot be closed return to step 2 and reassess or recommend whether third-party arbitration is necessary. 	On-going.

Step 1: Receive and Log Grievance Grievances can be submitted in writing, telephonically or presented verbally to the SDA-CE person in charge of the GRM using the following details:

- Name: SDA-CE project coordinator/specialist name.
- Date:
- Complaint:

31. The grievance is received by the SDA-CE or a Contractor representative and is forwarded to the SDA-CE PMU specialist in charge of handling the GRM. All grievances shall be logged using the Stakeholder Grievance Form (cf. Appendix). SDA-CE will log, document, and track all grievances received within the secure SDA-CE grievance database system (refer to Appendix for an example of a grievance database). Grievances shall be assigned a case number, and records of communication/consultation shall all be attached with the relevant entry and filed. The database shall be monitored regularly for recurring grievances so that appropriate mitigation can be developed. As a minimum the following information shall be recorded:

- Case number;
- Complainant's name and contact details;
- Date of complaint;
- Details of complaint;
- History of other complaints / queries / questions (if known);
- Resolutions discussed and agreed with the party(ies) in question;
- Actions implemented (including dates); and
- Outcome of the actions implemented.

Step 2: Acknowledging Receipt of a Grievance

32. SDA-CE shall acknowledge receipt of any grievance as soon as possible, but up to seven days from the date it was submitted and shall inform the complainant about the timeframe in which a response can be expected. A Grievance Receipt Form (Appendix A) shall be signed, and a copy provided to the complainant.

Step 3: Assess and Investigate Grievance The following steps shall be performed in a timely manner to avoid delaying resolution of a grievance:

1. Obtain as much information as possible from the person who received the complaint, as well as from the complainant to gain a first-hand understanding of the grievance.
2. Undertake a site visit, if required, to clarify the parties and issues involved. Gather the views of other stakeholders including SDA-CE employees, if necessary and identify initial options for settlement that parties have considered.
3. Determine whether the grievance is eligible.
 - Eligible grievances include all those that are directly or indirectly related to SDA-CE's project and that fall within the scope of the Grievance Redress Mechanism as outlined above.
 - Ineligible Complaints may include those that are clearly not related to SDA-CE's project or its contractors' activities, whose issues fall outside the scope of the Grievance Redress Mechanism procedure or where other

SDA-CE, or community procedures would be more appropriate to address the grievance.

4. If the grievance is deemed ineligible it can be rejected, however a full and documented explanation as to the reasons for this must be given to the complainant and recorded in the Grievance Database.

Step 4: Grievance Resolution.

1. If the grievance is eligible SDA-CE will determine whether the grievance can be resolved immediately or requires further investigation or channeling to other judicial or administrative instances (e.g., IFAD Ethics Office or IFAD Enhance Procedures).
 2. If the grievance concerns physical damage, (e.g., crops, house, community asset) take a photograph of the damage and record the exact location as accurately as possible.
 3. Inform the complainant of the expected timeframe for resolution of the grievance.
 4. Enter the findings of the investigation in the Grievance Database. SDA-CE will aim to resolve any grievances within 30 days from the date that it was received. This timeframe can be extended to 60 days for more complex grievances, if required.
33. If needed, an incident investigation SDA-CE team may be tasked with seeking resolution to the grievance. This may entail a dialog or series of dialogs between affected parties to find a solution to the grievance. Alternatively, it may entail investigating the underlying cause of the grievance and any changes required to internal systems to prevent a recurrence of a similar grievance.
34. An Incident Investigation report will be completed within 28 days (considered good practice). During the 28 days of dialog or investigation, the person in charge of the GRM will co-ordinate conflict resolution activities necessary to contain and resolve any actual or potential conflicts arising from the reported grievance. If the case is complex and the stated resolution timeframe cannot be met, an interim response will be provided (oral or written) that informs the stakeholder of the delay, explains the reasons, and offers a revised date for next steps. All procedures must be documented.
35. Where possible, grievances will be addressed directly by SDA-CE. The resolution proposal shall be respectful and considered, including rationale for the decision and any data used in reaching it. If wider consultation is necessary, grievances will be forwarded to a mutually agreed third party. This third party should be neutral, well-respected, and agreed upon by both SDA-CE and the affected parties. These may include public defenders, legal advisors, local or international NGOs, or technical experts. In cases where further arbitration is necessary, appropriate government involvement will be requested. As a last resort, aggrieved parties have a right to take legal action. This is a more formal rights-based approach that shall only be taken if all other approaches have failed or when there are serious conflicts about facts and data. The final decision will be taken by the arbitrator or courts based on compliance with laws, policies, standards, rules, regulations, procedures, past agreements, or common practice.

Step 5: Sign-off on Grievance

36. The person in charge of the GRM will seek sign-off from the complainant(s) that the grievance has been resolved. In instances where the stakeholder is not satisfied with actions taken, the grievance will either:

Be escalated to superior administrative or judicial instances and a decision will be taken either to implement supplementary actions or to consider initiating an appeal process.

OR

The person in charge of the GRM will approach a neutral or third party to assist in mediating and resolving the grievance.

OR

The person in charge of the GRM will approach the host country's judiciary to further address the grievance.

37. Following this process, the person in charge of the GRM in SDA-CE will again approach the stakeholder to obtain sign-off on actions implemented. The staff member who signs off the complaint should have sufficient knowledge about the topic to provide assurance. Once sign-off has occurred, this should be recorded in the Grievance Log. The same form used to receive the complaint will be used for the sign-off.

Step 6: Monitoring and Reporting

38. SDA-CE management will monitor grievances routinely as part of the broader management of the project. This entails a good record keeping of complaints raised throughout the life of the project. On receipt of grievances, electronic notification to management must be distributed. Grievance records must be made available to IFAD at all times. Periodic internal reports will be compiled by the person in charge of the GRM and distributed to the project's management team. These grievance reports will include, minimally:

- The number of grievances logged in the proceeding period by level and type.
- The number of stakeholders that have come back after 30 days stating they are not satisfied with the resolution.
- The number of grievances unresolved after 60 days by level and type.
- The number of grievances resolved between SDA-CE and complainant, without accessing legal or third-party mediators.
- The number of grievances of the same or similar issue.
- SDA-CEs' responses to the concerns raised by the various stakeholders.
- The measures taken to incorporate these responses into project design and implementation. These reports and other records will be made available for external review if required. An appropriate grievance report should be part of SDA-CE's annual reporting.

39. Annual reports will be made available to the public. A hard copy will be located at the SDA-CE offices, and an electronic copy will be made available online.

Enhanced Complaints Procedure for alleged Non-Compliance with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP).

40. IFAD projects must be carried out in compliance with its environmental, social and climate policies and safeguards. Projects should also promote the sustainable use of natural resources, build resilience to climate change, and be led by rural people themselves. IFAD's Complaints Procedure and the Enhanced Complaints Procedure ensure that appropriate mechanisms make it possible to file a complaint with IFAD if a person or persons believe(s) they are, or might be, adversely affected by an IFAD-funded program or project that is not complying with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). Every individual or group has the right to voice their complaints in relation to IFAD's work without threats to their safety or fear of retaliation.

41. The procedures do not apply to complaints related to sexual harassment, exploitation and abuse. These complaints should be reported to IFAD's Ethics Office. Complaints related to fraud, corruption, or financial and administrative matters should be reported to IFAD's Office of Oversight and Audit.

By email:

Download the Complaints (Word) for IFAD Complaints Procedure and the Enhanced Complaints Procedure
(<https://www.ifad.org/documents/38711624/40169860/IFAD+Complaints+Submission+Form+Final+Draft+%28Downloadable%29.docx/52c75cad-439f-4e4a-8a70-45056ebde826Form>)

Send the completed form by email to SECAPcomplaints@ifad.org

By mail to:

IFAD
SECAP Complaints
Program Management Department
Operational, Results and Policy Division
Via Paolo di Dono, 44
00142 Roma, RM, Italy

Please include the following information in the email or mail:

- Name, address, telephone number and other contact information
- Whether the complainants wish to keep their identity confidential, and if so, why
- Name, location, and nature of the IFAD project/program (if known)
- How the Complainants believe they have been, or are likely to be, adversely affected by the IFAD-supported project or program

Appendices

GRIEVANCE RECEIPT FORM – TO BE USED TO ACKNOWLEDGE GRIEVANCES SUBMITTED AND GRIEVANCE SIGN-OFF. A COPY SHOULD BE HANDLED TO THE COMPLAINT(S).

Grievance Number:		
Date Submitted:	Target date for initial meeting to address grievance:	Target date for final meeting to address grievance:
DD/MM/YR	DD/MM/YR	DD/MM/YR
Name of complainant:		
Anonymous: (inform how the claim was submitted)		
Contact Details		
Telephone:		
Email:		
Address:		
What would you like to see happen to resolve the problem?		
Additional Comments:		
Grievance Received by:		
Person in charge of addressing the claim:		
Project Coordinator sign-off:		
Complainant sign-off (date and sign at closure of grievance)		

GRIEVANCE RECORD – TO BE USED AS PART OF THE DATABASE. OF INTERNAL USE.

Reference No: (for official use)				
Full Name:				
Contact details:				
Anonymous: (inform how the claim was submitted)		Yes		No
Please mark how the complainant wishes to be contacted (letter, telephone, e-mail).				
Grievance Received by:				
Person in charge of addressing the claim:				
Date Submitted:	Target date for initial meeting to address grievance:	Target date for final meeting to address grievance:		
DD/MM/YR	DD/MM/YR	DD/MM/YR		
Description of Incident or Grievance: What happened? Where did it happen? Who did it happen to? What is the result of the problem? Date of Incident/Grievance				
What would you like to see happen to resolve the problem?				
One time incident/grievance (date _____)				
Happened more than once (how many times? _____)				
On-going (currently experiencing problem)				
Additional Comments:				

GRIEVANCE RECORD – TO BE USED AS PART OF THE DATABASE

Grievance Record			
Grievance number:	Date submitted:	Target closing date:	
Name of complainant:			
Contact details:			
Received by:			
Description of grievance:			
Actions to resolve grievance			
Person in charge of resolving grievance			
Action	Who?	Due date?	Comments
(...)			
Complainant response			
Strategy to communicate resolution			
Grievance resolution			
Is the complainant satisfied?			
Grievance Closed?			
Sign-off date			
Grievance Resubmitted?			

GMR DATABASE (PROPOSAL FOR FURTHER REFINEMENT)

TABLE 1 – record of grievances

Case number	Date of complaint	Target Resolution Date	Summary of complaint	Person in Charge	Actual resolution date	Sign-off date	

TABLE 2 – CASE FOLLOW UP

Case number	Complainant’s name and contact details	Details of complaint	Resolutions discussed and agreed with the party(ies) in question	Actions implemented (including dates)	Outcome of the actions implemented.	Sign-off date	History of other complaints / queries / questions (if known

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: E Targeted Adaptation Assessment

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

**CAPACITY DEVELOPMENT FOR OVERCOMING HUNGER AND MITIGATING
THE EFFECTS OF RURAL POVERTY AND EXTREME POVERTY – PAULO FREIRE
II**

ANNEX E: TARGETED ADAPTATION ASSESSMENT

January 2024

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Acronyms

AE	Agroecology, Agroecological
AECID	Spanish Agency of Cooperation
ASD	Areas most Susceptible to Desertification
ATER	Technical Assistance and Rural Extension
CMIP	Coupled Model Intercomparison Project
ESMF	Environmental and Social Management Framework
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
FO	Farmer Organization(s)
GCM	Global Climate Model
KM	Knowledge Management
MAP	Mean Annual Precipitation
MAT	Mean Average Temperature
M&E	Monitoring and Evaluation
PMU	Project Management Unit
PCT	Traditional Peoples and Communities
PD	Local Rural Development Plans
RCP	Representative Concentration Pathway (Emission Scenarios)
SDA	Ceará State Government's Secretariat for Agrarian Development
SECAP	Social Environment and Climate Assessment Procedures
SSP	Shared Socioeconomic Pathways (Emission Scenarios)
SSTC	South-South and Triangular Cooperation
STA	Specialized Technical Assistance
TA	Technical Assistance
WSS	Water supply systems

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1. INTRODUCTION

This Targeted Adaptation Assessment for the **Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty – Paulo Freire II (Project)** in accordance with IFAD requirements. As indicated in SECAP¹. For projects that are classified as "substantial risk" in the climate screening procedure, a Targeted Adaptation Assessment is required, with the identification of adaptation measures that may be necessary in the design of the project, to ensure that it is sustainable in the long term.

Project Sheet:

Project Title	Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty – Paulo Freire II (Project)
Territory where the Project will take place	175 municipalities in the semi-arid region of the state of Ceará. The Project will focus its interventions on 74 priority municipalities.
Name of the Executing Entity	SDA - Secretariat for Agrarian Development of the state of Ceará
Date of preparation of this Assessment	This document was drafted in January 2024.

The adaptation assessment was prepared to guide the program interventions, which may require specific assessments during the implementation. The program implementation units will do the necessary revisions or updates of the adaptation activities as per the requirements.

2. PROJECT OVERVIEW

The Paulo Freire² Project phase II (PPF2, Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty Project) in the State of Ceará, Brazil, builds on the successful intervention of phase I, aiming to reduce poverty and food insecurity through investments in family farming. Total Project costs are EUR 137 million (approximately US\$ 145 million) over six years of implementation with co-financing of the Spanish Agency of Cooperation (AECID), counterpart financing by the state government of Ceará and beneficiaries' contribution. It will ensure the development and strengthening of sustainable and nutritious local food systems, improving resilience, income, and food security of farming households. Project components will focus on (i) developing more resilient family farming systems, (ii) investing in public technologies for sanitation, access to water and clean energy, and (iii) developing a continuous technical support system

¹ Social Environment and Climate Assessment Procedures – IFAD (<https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>)

² Paulo Freire (1921-1997) is a famous Brazilian educator and philosopher who was a leading advocate of critical pedagogy. His influential work *Pedagogy of the Oppressed* is generally considered one of the foundational texts of the critical pedagogy movement, and was the third most cited book in the social sciences worldwide according to Google Scholar.

for farmers and cooperatives. The Project will be implemented by the Secretariat for Agrarian Development (SDA) of the state of Ceará.

PPF phase I was successful in its impact on poverty reduction, climate resilience, increased production, and access to public policies. As a result, the government of the state of Ceará requested the replication, expansion, and continuity of this successful project as a priority and was willing to provide counterpart financing. Based on the success of phase I, AECID expressed interest in taking over a major part of the financing for phase II (IFAD only provides 6% of total Project budget). AECID also decided to allocate a grant into the PPF2 to continue the KM and SSTC activities carried in Brazil by IFAD, such as through the Semear³ Program (Knowledge Management in the Northeast Semiarid Region of Brazil), also funded by AECID.

2.1. Project Goals

The Project's goal is to reduce rural poverty, food insecurity and malnutrition in family farming. The development objective is to increase the sustainability of production systems and the resilience of family farmers.

Currently, production systems are characterized by low productivity, lack of diversification, increasing degradation of natural resources and high levels of vulnerability to climate change, especially drought. They face various social, generational, and racial-ethnic inclusion gaps, which results in a perpetuation of poverty, vulnerability, food insecurity and malnutrition. There are few opportunities for family farmers to access technology, services and markets that are adapted and respond to the development of sustainably produced food, bringing employment opportunities. To address these challenges, the Project will work along three development paths that will lead to Project results and help achieve its goal:

- i) Improve rural families and farmers organizations (FOs) food production systems and nutrition, allowing them to access new markets and increase sales, while encouraging innovation and youth employment.
- ii) Ensure that rural families and communities increase their access to water and sanitation through social technologies.
- iii) Strengthen capacities and empower young people, women, traditional peoples, and communities and LGBTQIAPN+ groups.

2.2. Project Intervention Area

The Project will cover all 175 municipalities in the semiarid region⁴ of the state of Ceará but will focus its interventions on 74 priority municipalities. The selected area will consist of new intervention areas, with a combination of some territories of the previous phase that will serve as model and reference for replication of experiences and consolidation of their achievements. The municipalities will be selected based on the Municipal Alertness Index (IMA), developed by IPECE, which combines 12 indicators⁵ to measure the vulnerability of municipalities to climatological,

³ <http://portalsemear.org.br/sobre-o-programa/o-programa/>

⁴ The criteria used to delimit the semi-arid region will be those approved by Sudene's Deliberative Council Resolutions No. 107 of July 27, 2017 and No. 115 of November 23, 2017: Average annual rainfall equal to or less than 800 mm, Thornthwaite Aridity Index equal to or less than 0.50 and Daily percentage of water deficit equal to or greater than 60%, considering all days of the year.

⁵ The indicators measured are: agricultural productivity per hectare, agricultural production per capita, use of the harvested area for subsistence crops, crop losses, proportion of families benefiting from Bolsa Família, number of Seguro Safra vacancies per 100 rural inhabitants, climatology, normalized rainfall deviation, surface runoff, rainfall distribution index, aridity index and situation of the water sources in the supply systems of urban centers.

agricultural, and social assistance issues. It will also consider reference experiences for scaling-up innovative approaches and practices.

The map below shows the area of Project:



Figure 1: Map of the Project Area. The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof. Map compiled by IFAD on 25-09-2023.

2.3. Project Components Description

PPF II is structured in three components:

Component 1 - Rural development with environmental sustainability based on agroecology

Component 1 aims to implement investments for the development, diversification, and adaptation of family productive capacity, with actions carried out to promote and

encourage the adoption of agroecological practices and the conservation and preservation of natural resources. It also aims to improve the structure and capabilities of agricultural product processing units, to enhance marketing (cooperatives and others). It will also support cross-project activities on the themes of gender, youth, traditional peoples and communities (PCTs), and nutrition.

Its main actions include:

- i. Implement Local Rural Development Plans (PD) for family farmers, farmer organizations (FOs), and/or collective use, including PD specifically targeting women and youth.
- ii. Environmental PDs implementing collective management of natural resources, promoting restoration of degraded areas, protecting water sources, building seed banks, etc.
- iii. Strengthen existing small cooperatives to improve the processing and marketing of family farming products;
- iv. Developing new market access and marketing channels to bring agroecological products to market;
- v. Carry out land and environmental regularization; and
- vi. Promote the empowerment of women and young people, as well as improving the nutrition of beneficiary families.

Component 2: Water security, sanitation, and social technologies

This component's objective is to invest in water, household sewage and renewable energy. It will also raise awareness about good practices in the use of water for domestic purposes, hygiene, and sanitation as a means to have a greater impact on the nutritional security of the community. Small infrastructures for access and storage of water for agricultural production will be implemented through this component. Whether for community or family use, the investments will guarantee access to water of better regularity and quality, in addition to reducing soil and water contamination with waste produced in family units. Practices and technologies for the rational use of water will be systematically introduced with a focus on climate change adaptation. To contribute to the construction of innovative solutions, the Component will finance the dissemination of innovations developed by local micro entrepreneurs and public agencies.

Its main actions include:

- i. Implement rural community and family basic sanitation, including social technologies for access to water for human consumption and agricultural production such as cisterns for rainwater harvesting, technologies for wastewater treatment and reuse;
- ii. Building biodigesters and eco-efficient stoves.
- iii. Financing the implementation of innovative solutions customized for the local context, such as specific tools and equipment for small-scale agroecological systems (e.g., agroforestry mechanization), nurseries, composting services, organic fertilizer production, products for pest control, processing machines for cooperatives and associations, products derived from native/traditional species, renewable energy, etc.

Component 3: Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

This component aims to promote the training of small producers, foster environmental education to ensure food and nutritional security in rural communities, and implement sustainable and inclusive technologies and innovations, adapted to the semiarid environment. Replicable pilot projects will be developed, based on experiences in Brazil and other countries, following the South-South and Triangular Cooperation (SSTC) model. It also aims to provide support to the Project Management Unit (PMU) to strengthen the State's institutional capacity to execute PPF II.

Its main actions include:

- i. Strengthening Technical Assistance (TA) service on participatory methodologies, agroecological techniques, climate resilience, nutrition, desertification, biodiversity, and social inclusion;
- ii. Provide continuous TA for the development of sustainable food production systems, for the identification, design, and implementation of Component 1 and 2 actions. Through TA, technical support will be offered to beneficiaries to improve nutritional practices, agroecological production, safe processing, and conservation of local foods with the potential to improve the micronutrient profile of diets;
- iii. Provide STA to strengthen organizational capacities and the processing and marketing of small cooperatives;
- iv. Digital TA to complement continuous TA for knowledge and innovation;
- v. Promote environmental and climate education with a gender focus in rural schools;
- vi. Promote technological research and implementation of pilot projects;
- vii. Implementation of KM and communication strategies;
- viii. Organize SSTC events and exchanges; and
- ix. Strengthening the PMU for implementing and monitoring activities.

Project Management, Monitoring and Evaluation (M&E), Knowledge Management and SSTC

A Project Management Unit (PMU) will be set up at the Ceará State Government's Secretariat for Agrarian Development (SDA) and will be responsible for the Project implementation, as well as carrying out technical coordination, managing socio-environmental safeguards, financial management, audits and monitoring and evaluation (M&E).

3. INDICATION OF HAZARD, EXPOSURE, VULNERABILITY AND ADAPTATIVE CAPACITY

The context of climate to the Paulo Freire II area is presented below, with the relevant climate variables to understand and evaluate the potential impacts on the Project's investments followed by the identification of the main hazards, exposure, vulnerability and adaptative capacity.

3.1. Current Weather

The climate classification expresses the average conditions of the Earth's atmosphere. These conditions, despite daily, monthly, and seasonal variations are represented by climatic bands that remain reasonably uniform, within an average pattern of oscillation.

According to Alvares et. al (2013), the Köppen climate classification in the region of Paulo Freire II Project is semiarid or tropical with dry summers:

Hot Semiarid (Bsh): This type of climate is defined by low precipitation in a region with average annual temperature above 18 °C. To determine if a location has a semiarid climate, the precipitation threshold must first be determined. The method used to find the precipitation threshold ($P_{\text{threshold}}$, in millimeters) varies according to the following rules: if 70% of Mean Annual Precipitation (MAP) occurs in winter then $P_{\text{threshold}} = 2 \times \text{Mean Average Temperature (MAT)}$, if 70% of MAP occurs in summer then $P_{\text{threshold}} = 2 \times \text{MAT} + 28$, otherwise $P_{\text{threshold}} = 2 \times \text{MAT} + 14$. If the area's annual precipitation in millimeters is less than 10 times the threshold but more than 5 times the threshold, it is classified as a BS (steppe or semiarid climate). If the average annual temperature is higher than 18 °C, the climate is considered hot (h). Taking as example the municipality of Jaguaruana-CE, which has MAT of 27.7 °C and MAP of 691.2 mm, with 48% of precipitation happening in the winter, we will have a $P_{\text{threshold}} = 2 \times 27.7 + 14 = 69.4$. Since MAP is 9.95 times the threshold (between 5 and 10), the climate is BSh (Peel et. Al, 2007).

Tropical with dry summer (As), savanna climate: This type of climate has an average temperature of 18 °C or higher every month of the year, with a temperature range between 20 °C and 30 °C. In summer, the temperature is between 25 °C and 30 °C, while in winter the temperature is between 20 °C and 30 °C, but still stays above an 18 °C mean. The driest months are generally in the summer, having precipitation less than 60 mm and less than $(100 - \text{annual precipitation} / 25)$.

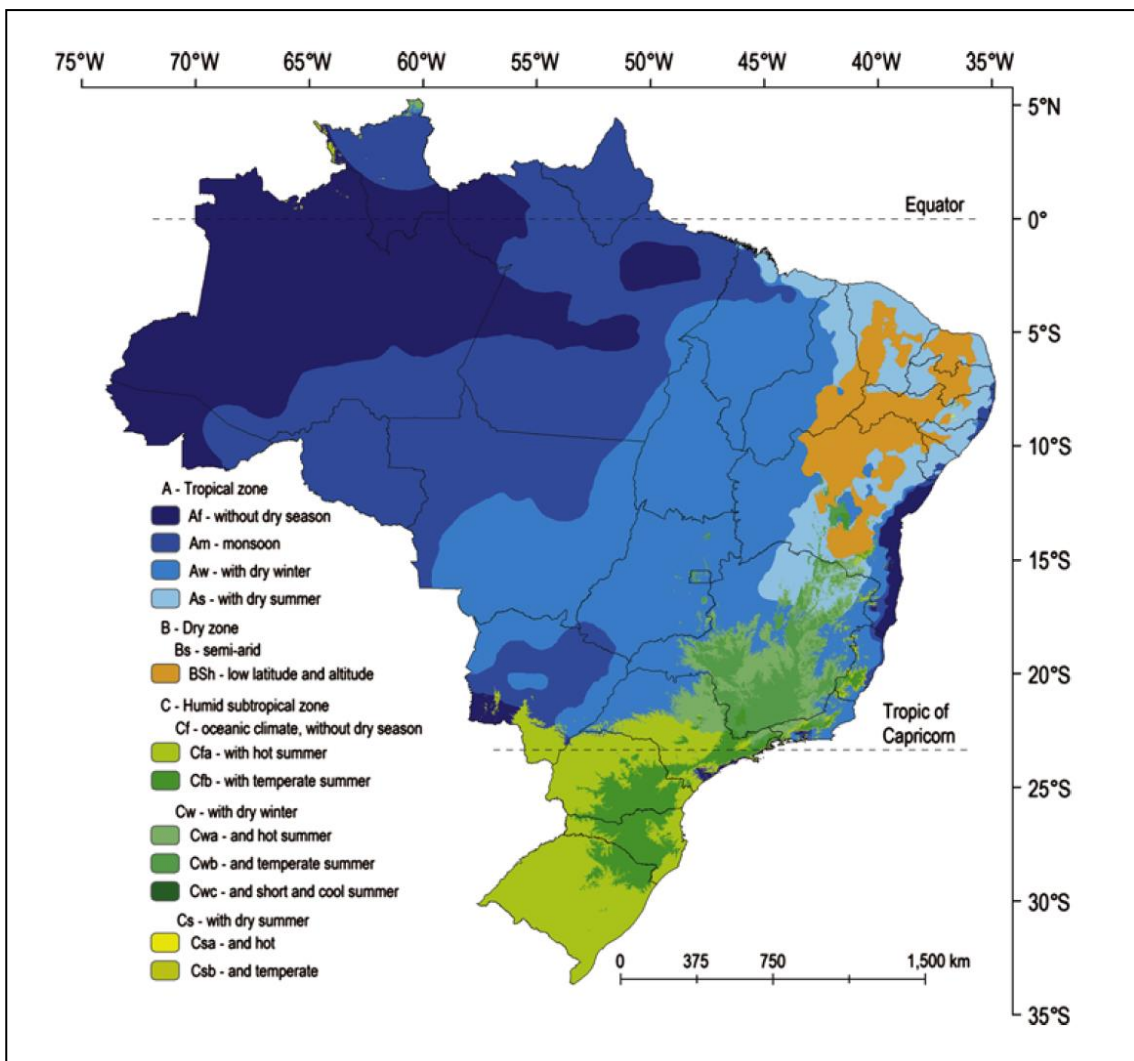


Figure 2: Climate classification for Brazil, according to the Köppen criteria.

According to IPECE (2007), the climate in the region of Paulo Freire II Project is hot and semiarid. According to IBGE (2002), the dry season in the region of the Project varies from 6 to 8 months.

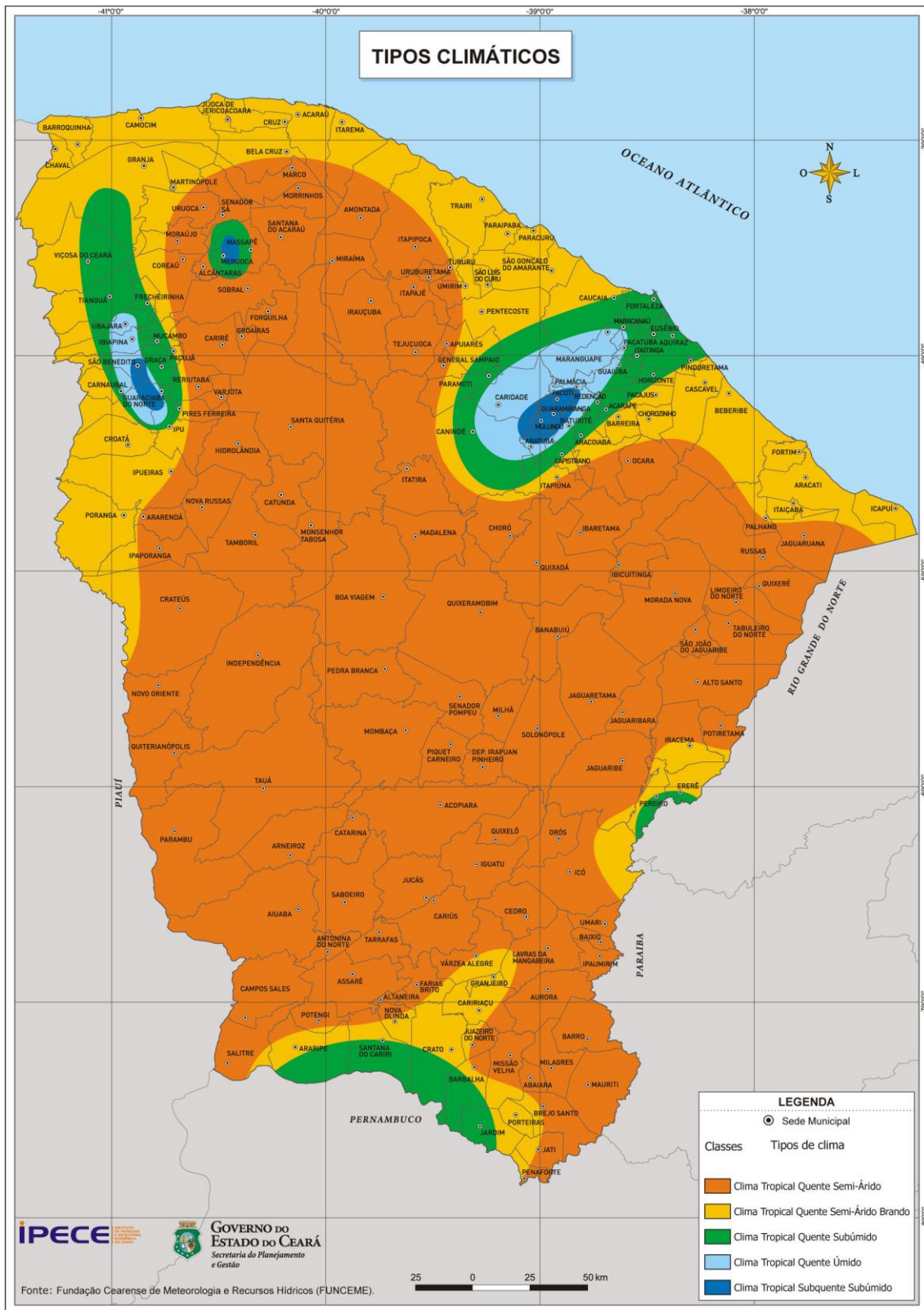


Figure 3: Climate classification for Ceará, according to the IPECE.

According to Nimer (1989), the main air masses that influence Brazil territory is shown in the following Figure. It can be seen that the Project area is directly influenced by mEa during the summer and by mTa during the winter.

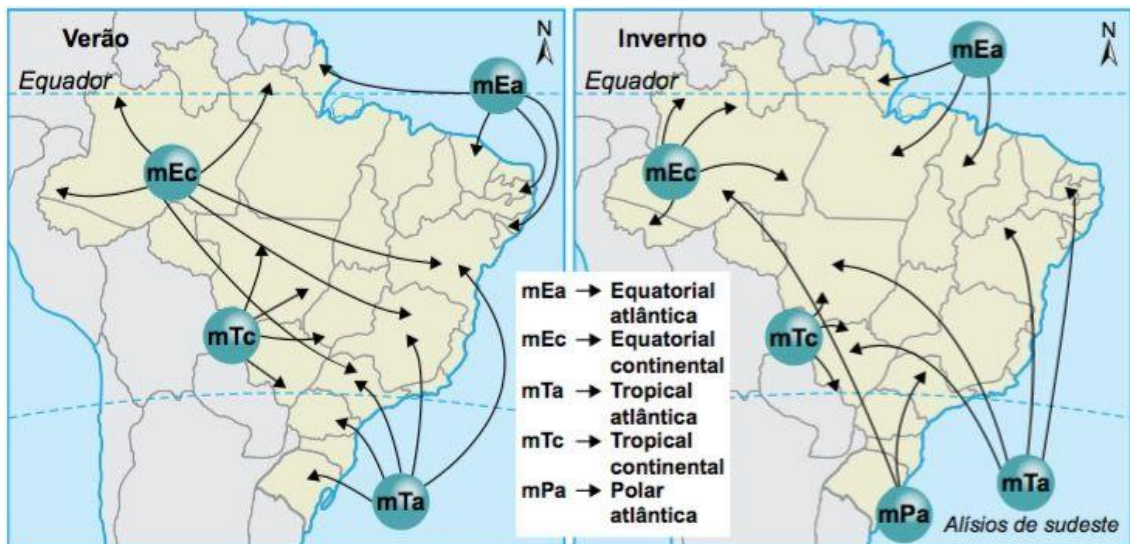


Figure 4: Brazil's Main Air Masses over Climate Zones, adapted from Nimer, 1989.

During the summer, the Atlantic Equatorial Air Mass (mEa) exerts influence on a large part of the northern Brazilian territory. In the case of Ceará, the mEa increases the rainfall during the summer keeping the temperature high. The mEa also intensifies the wind regime in the region.

The Atlantic Tropical Air Mass (mTa) is another mass of hot and humid air that advances across Brazilian territory. It influences the atmospheric behavior of the Southeast and South Regions, mainly in the summer months. During the winter, this mass is displaced by the trade winds, also reaching the Northeast.

The INMET Climatological Normal Data from 1981 to 2010 were analyzed using five meteorological stations: Crateús, Jaguaruana, Quixeramobim, Sobral and Tauá.

According to the following graph presented in the Figure below, all locations have rainfall concentrated in the first six months of the year (Jan-Jun), followed by six dry months. It can also be seen that Sobral has the highest rainfall rates of all five locations.

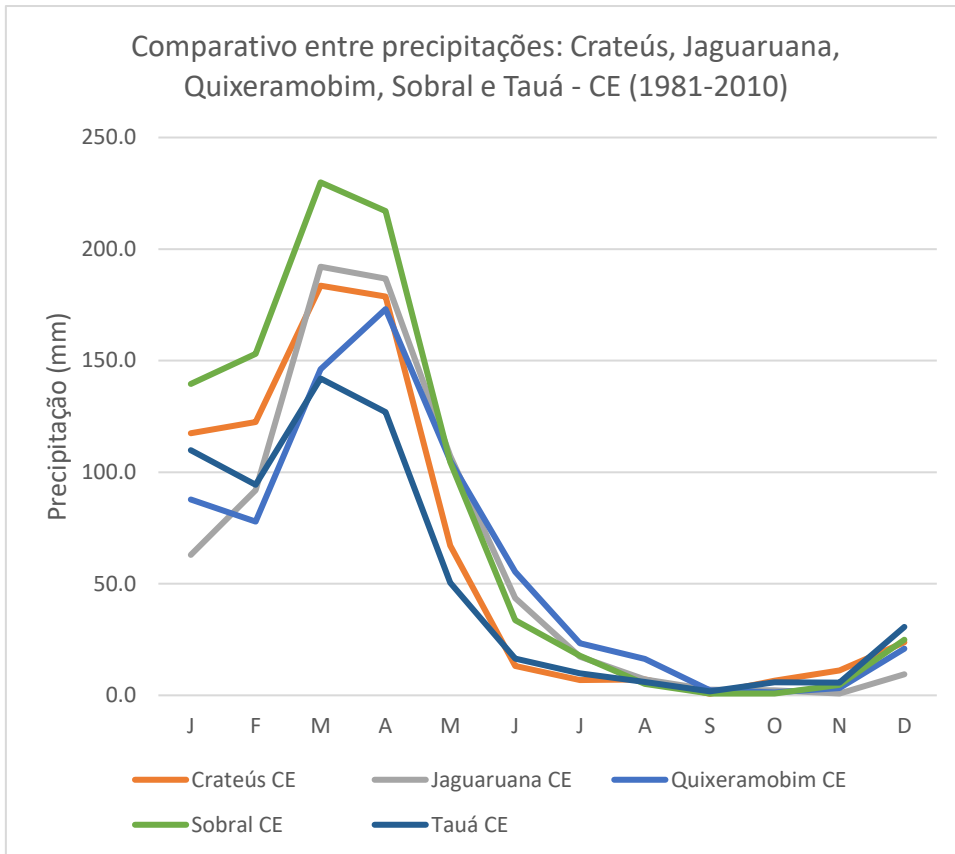


Figure 5: Comparison between precipitations: Crateús, Jaguaruana, Quixeramobim, Sobral and Tauá - CE (1981-2010)

Comparing the annual rainfall rates between 1981-2010 and 1961-1990, it is visible that precipitation reduced in all locations evaluated.

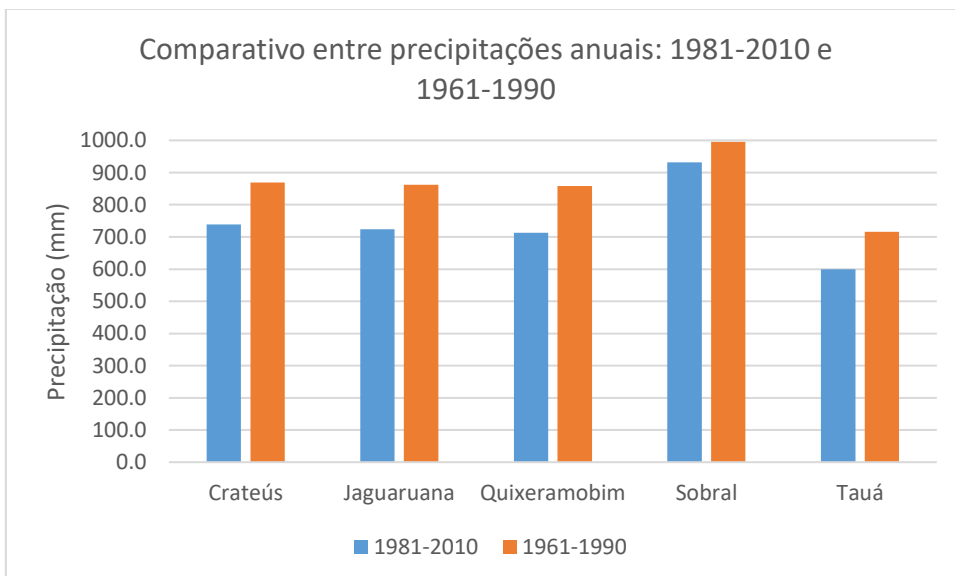


Figure 6: Comparison between annual precipitations: 1981-2010 and 1961-1990

Regarding temperature, all locations have hot weather, with mean temperature above 18 °C during all months of the year.

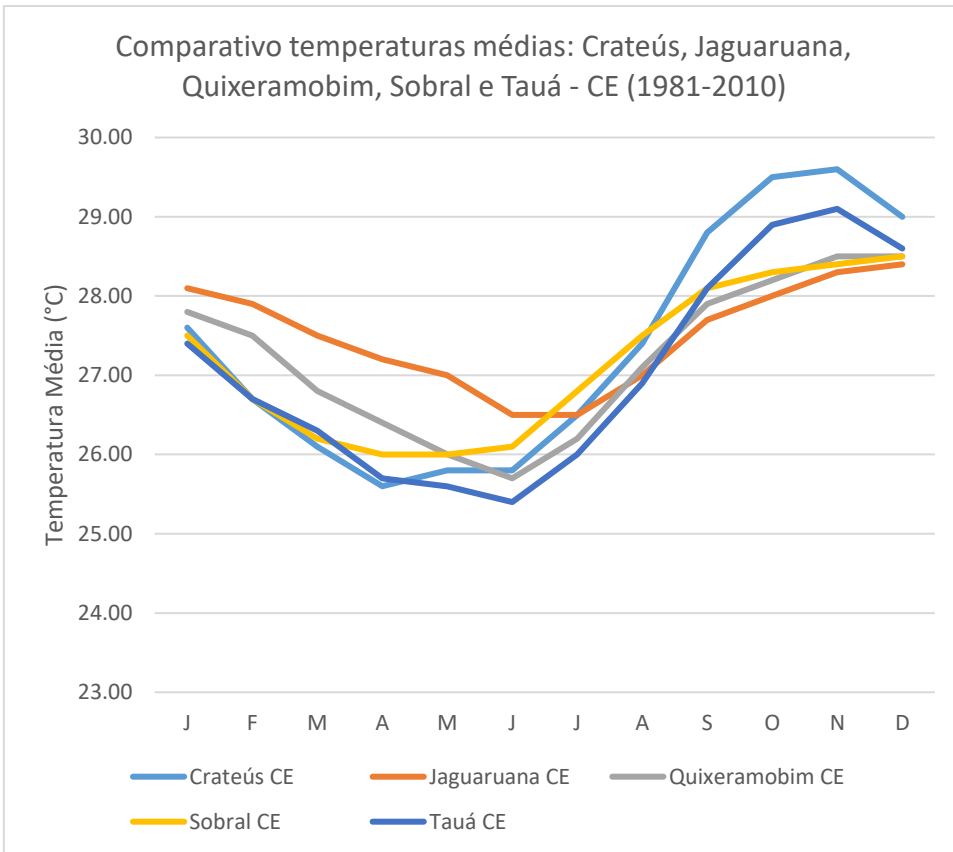


Figure 7: Comparison between average temperatures: Crateús, Jaguaruana, Quixeramobim, Sobral and Tauá - CE (1981-2010)

The following graph is presented for the periods of 1961-1990 and 1981-2010. An upward trend in average temperatures can be perceived. Temperatures for Jaguaruana were not available for 1961-1990.

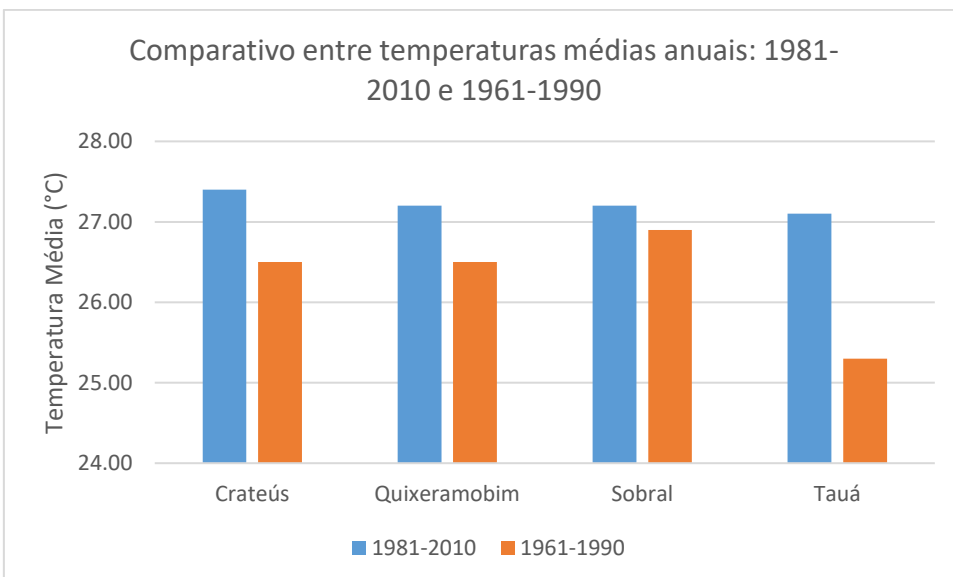


Figure 8: Comparison between average annual temperatures: 1981-2010 and 1961-1990

3.1.1. Desertification trends

Desertification is a process of land degradation, which occurs in arid, semiarid and dry sub-humid regions, because of some factors such as overgrazing and indiscriminate deforestation, aggravated by global warming, with Ceará being one of the most affected regions (PEA-CE, 2010).

Environmental degradation and the disorderly occupation of different ecosystems in Ceará are facts effectively recognized by the scientific community, by a significant part of society and by official and non-governmental institutions. Environmental imbalances have profoundly marked the original characteristics of ecosystems, and all natural macro-domains were systematically disrupted (PEA-CE, 2010).

Ceará has 20% of its native vegetation preserved, and in the Sertões (hinterlands) only 10% of the dense arboreal caatinga is preserved. Between 2019 and 2021, deforestation advanced significantly in the state. MapBiomas' Annual Report on Deforestation in Brazil found that deforestation in the state rose from 854 hectares in 2019 to 20,820 hectares in 2021. Between 2021 and 2022, there was a 13% increase in the deforested area.

According to PEA-CE (2010), the hinterlands are home to the areas most susceptible to desertification (ASDs) in the State of Ceará. Among the evidence recorded there, the following are worth highlighting:

- disorderly degradation of vegetation cover
- ablation of soil surface horizons
- predatory hunting and commercialization of wild animals
- silting of rivers, dams, and changes in the hydrological regime
- excessive grazing
- impoverishment of biodiversity
- reduction in the productive capacity of soils and the quantity/quality of water resources
- triggering of erosive actions in degraded areas
- impediments to agricultural mechanization of soils
- inadequacy of production systems
- mismatch between the productive capacity of natural resources and their recovery capacity
- increased vulnerability of the carrying capacity of renewable natural resources in progressively degraded environments.

This evidence of desertification and possible expansion are particularly notable in the Sertões dos Inhamuns, Sertões de Irauçuba and Centro-Norte and in the Sertões do Médio Jaguaribe, as shown in the figure below:

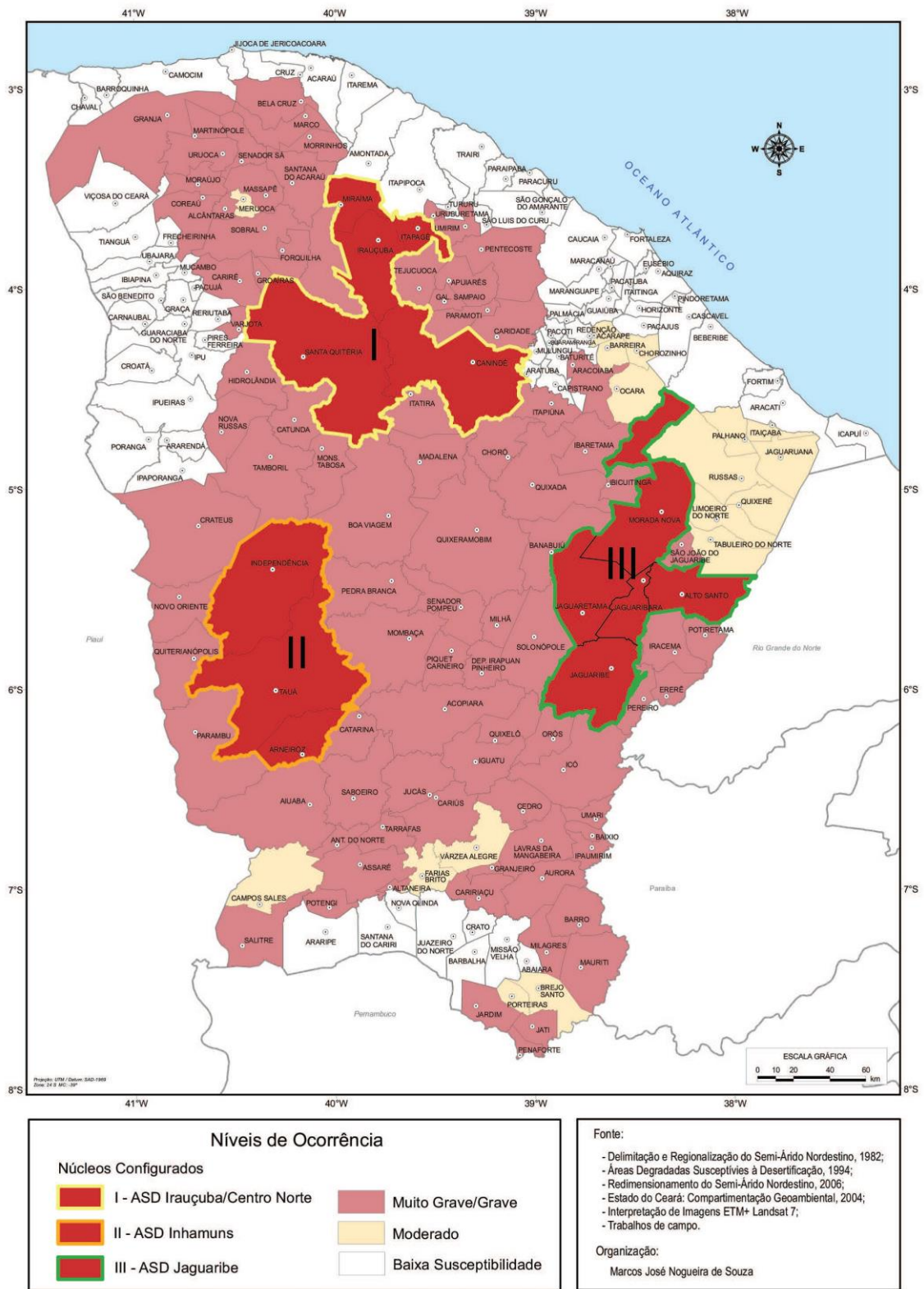


Figure 9: Ceará State, municipalities susceptible to desertification. Source: PEA-CE (2010)

There is a pressing need for environmental recovery actions to be implemented in these areas, avoiding irreversible levels of deterioration, which would prevent their restoration or make them economically unviable, mainly for subsistence agriculture. (PEA-CE, 2010)

3.2. Future Climate

This item was prepared based on data from the Climate Change Knowledge Portal (World Bank Group)⁶. The climate projection data were modeled from the compilations of global climate models of CMIP6 (Coupled Model Intercomparison Project Phase 6), overseen by the World Climate Research Program. The CMIPs made the basis of IPCC Assessment Reports. Information from the World Bank's Climate Risk Country Profile: Brazil report (2021), which is based on CMIP5, was also used.

According to a report by the World Bank (2021), Brazil's average annual temperatures are expected to increase between 1.7°C and 5.3°C until the end of the century. The most significant increases are expected to occur in the months of January and July. The study indicates that higher warming is projected to increase from the country's western interior to its eastern coast. Central regions are expected to have the most significant temperature increases. The countryside is predicted to warm faster than areas along the coast, but rising sea surface temperatures may negatively impact the normally cooling ocean airflow in coastal regions. It is projected that frequency and duration of heat waves in the Amazon will increase by up to an additional 214 days in 2090 (World Bank, 2021).

Precipitation is highly variable throughout Brazil, as are projections at the seasonal and geographic level. However, through the end of the century, annual rainfall is expected to increase in the northern, central-western, and southern areas of Brazil. Precipitation decreases are expected for the northeastern, central, and southwestern areas of the country. The dry season in the Amazon will probably be longer as precipitation values decrease, especially for the traditional dry season (August to November) (World Bank, 2021).

ENSO (El Niño–Southern Oscillation) brings heavier and more frequent precipitation events, with a greater likelihood of longer drier periods in between. The country's tropical wet region is projected to also experience a significant increase in dry spells. The figure below shows the variation in the average annual rainfall projected for Brazil. Solutions for water resources management can vary depending on whether periods of precipitation occur frequently. At an aggregated nationally scale, it is expected that annual average rainfall will remain similar to historical observations but vary slightly over the century, based on emissions scenarios

⁶ <https://climateknowledgeportal.worldbank.org/country/brazil/climate-data-projections>

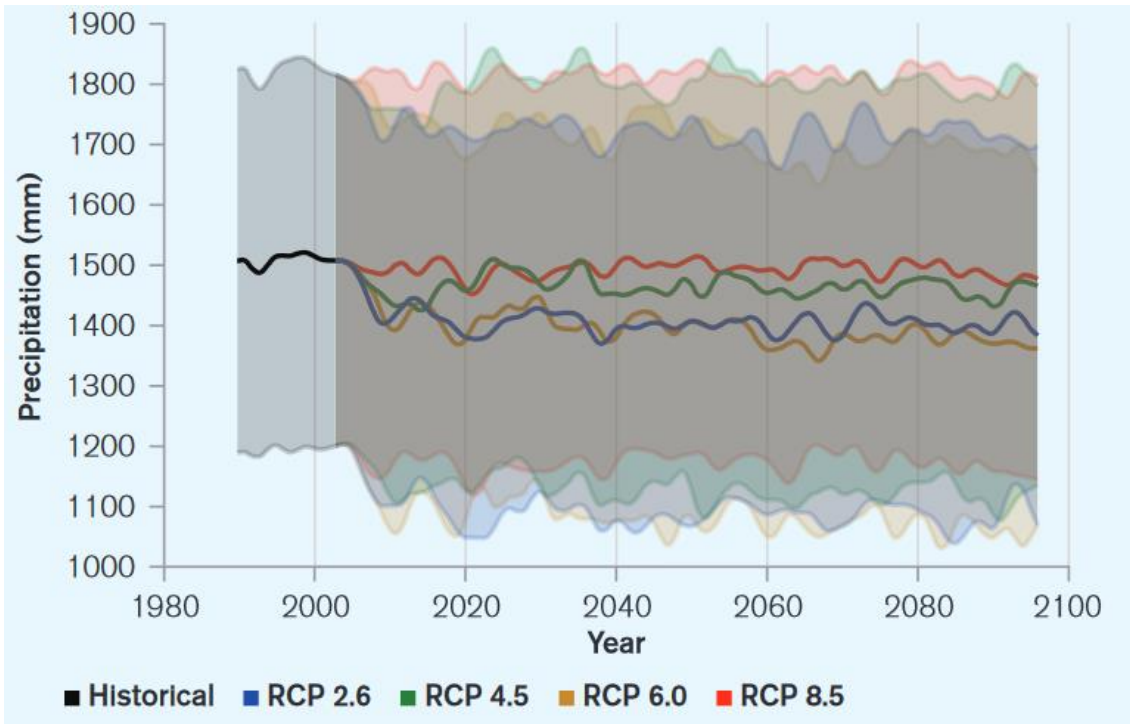


Figure 10: Projected annual average precipitation in Brazil for four different emission scenarios (Reference Period, 1986–2005). Source: World Bank (2021).

Changes in temperature and precipitation will vary by region. The figure below shows regional variation in the projected changes by the multi-model set (CMIP5, using 32 GCMs) in annual temperature (top) and precipitation (bottom) for periods 2040–2059 (left) 2080–2099 (right) relative to the 1986–2005 baseline at RCP8.5 (highest emission scenario).

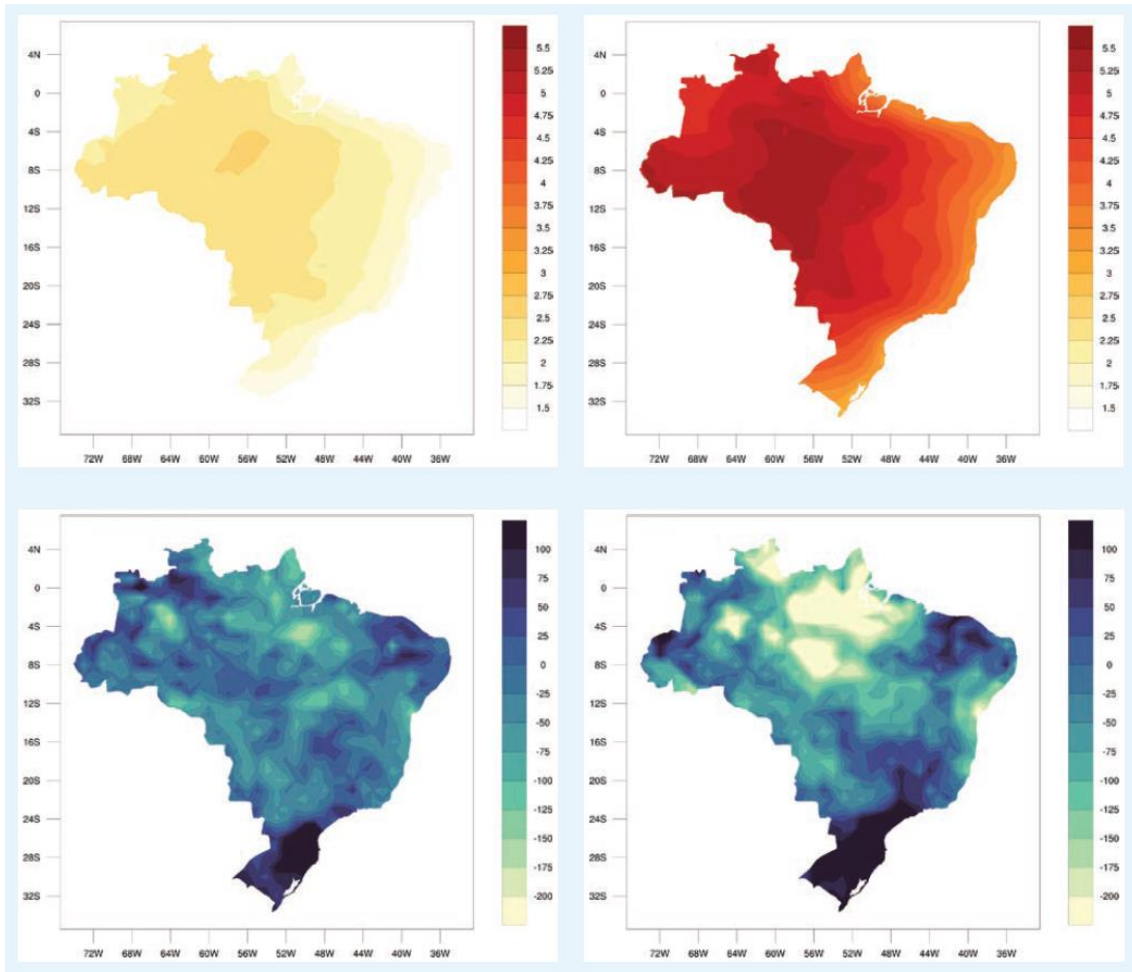


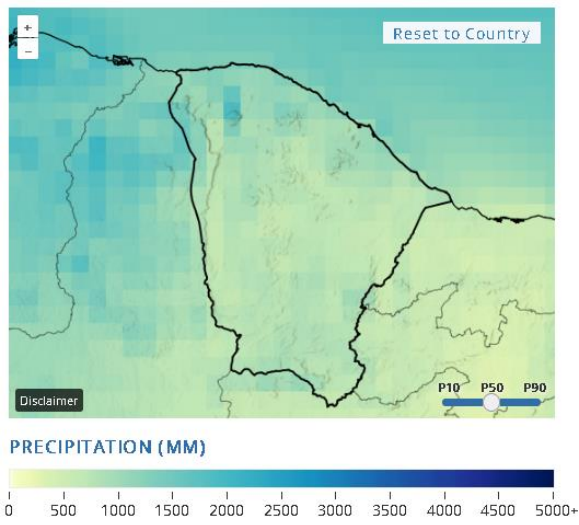
Figure 11: Projected changes by the multi-model set (CMIP5, using 32 GCMs) in annual temperature (top) and precipitation (bottom) for periods 2040–2059 (left) 2080–2099 (right) relative to the 1986–2005 baseline at RCP8.5 (highest emission scenario).

Focusing on the state of Ceará, as shown in the figures below in the SSP5-8.5 scenario for the period between 2020 and 2039, no major differences are identified in the general averages of precipitation. There is an indication that January and February will have slightly higher volumes of precipitation than the historical series, with a small reduction in May and June. The same situation is visible in the period between 2060 and 2079 with more expressive volumes at the beginning of the year and a reduction in volumes between May and July.

It is also important to observe the Projected Precipitation Anomaly graph with the highest volumes of rainfall in January and February (+20 to 40mm) and a reduction between May and June (-10 to -15 mm). These changes would result in a shorter rainy season and consequentially longer dry season.

It should be noted that SSP5-8.5 is a high reference scenario with no additional climate policy. Emission levels as high as SSP5-8.5 are not obtained by Integrated Assessment Models (IAMs) under any of the SSPs other than the “high fossil fuel” SSP5 socioeconomic development pathway.

Projected Climatology of Precipitation for 2020-2039 (Annual)
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble



Projected Climatology of Precipitation for 2020-2039
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble

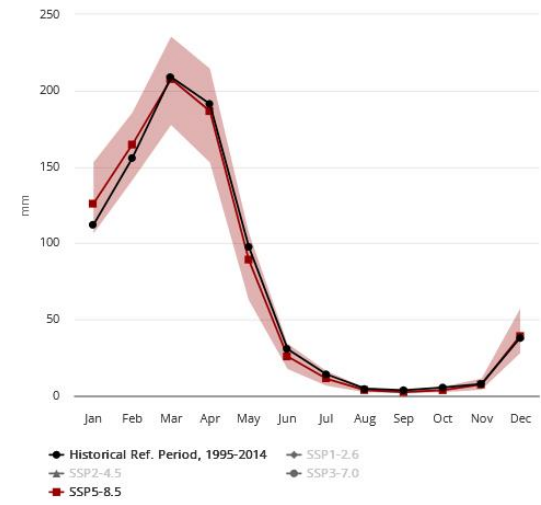
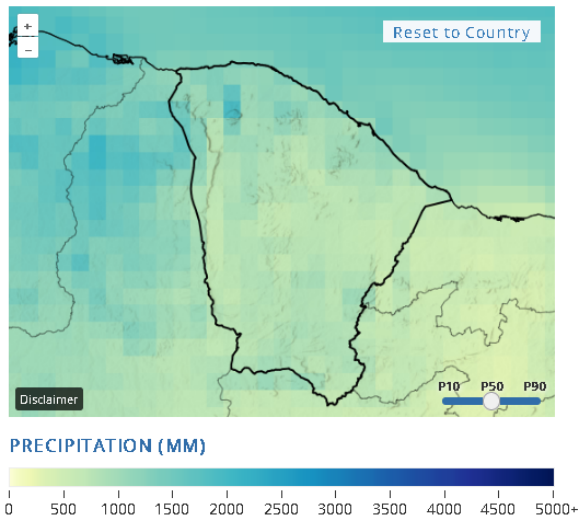


Figure 12: Precipitation – Scenario SSP5-8.5 – 2020-2039

Projected Climatology of Precipitation for 2060-2079 (Annual)
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble



Projected Climatology of Precipitation for 2060-2079
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble

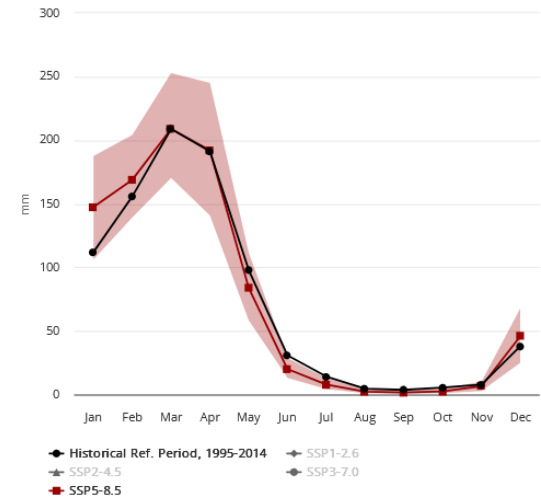


Figure 13: Precipitation – Scenario SSP5-8.5 – 2060-2079

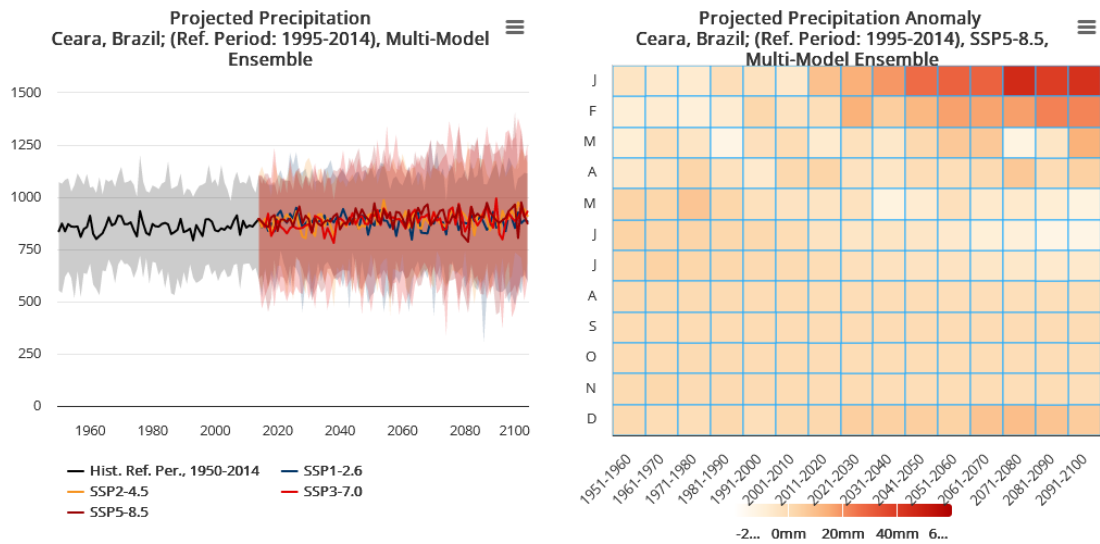


Figure 14: Precipitation – Scenario SSP5-8.5 – 1960-2100 and Anomalies

Regarding temperatures, the figures below show an increase in the mean temperature between 0.8 to 1 degree in the period of 2020-2039, while for 2060-2079 period the increases are between 2.5 and 3 degrees, with greater anomalies in November and December.

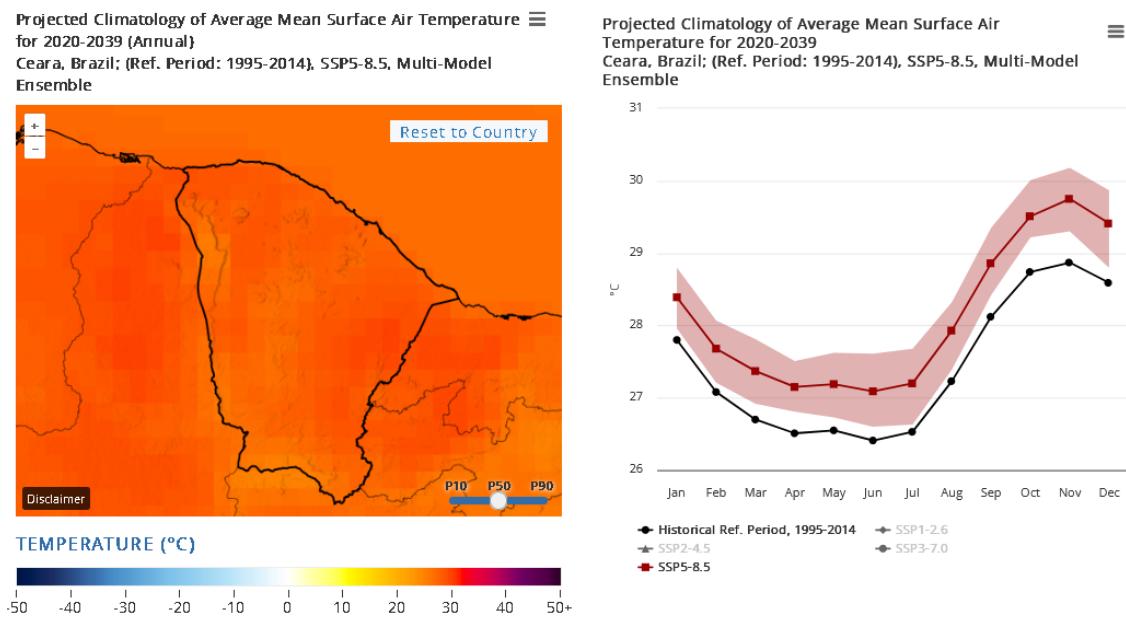
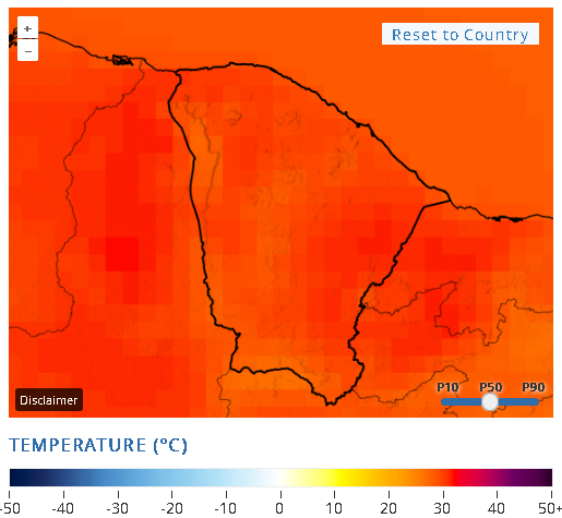


Figure 15: Mean Surface Air Temperature – Scenario SSP5-8.5 – 2020-2039

Projected Climatology of Average Mean Surface Air Temperature for 2060-2079 (Annual)
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble



Projected Climatology of Average Mean Surface Air Temperature for 2060-2079
Ceara, Brazil; (Ref. Period: 1995-2014), SSP5-8.5, Multi-Model Ensemble

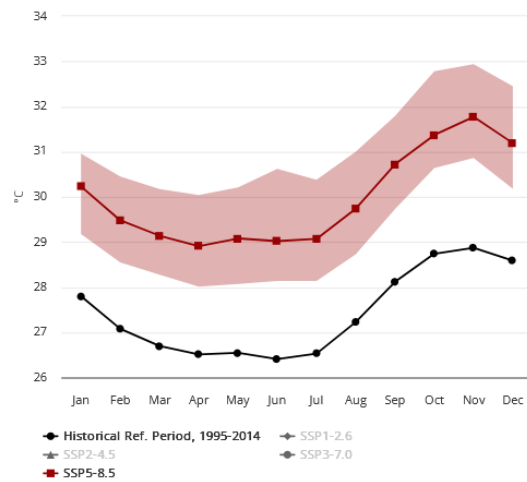


Figure 16: Mean Surface Air Temperature – Scenario SSP5-8.5 – 2060-2079

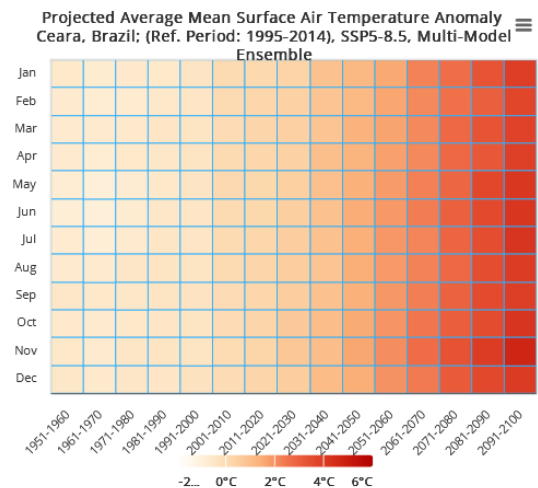
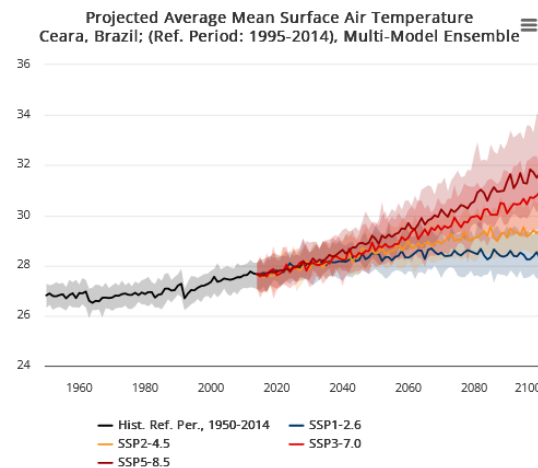


Figure 17: Mean Surface Air Temperature – Scenario SSP5-8.5 – 1960-2100 and Anomalies

Even with small changes in precipitation, increasing temperatures are likely to increase evapotranspiration, with adverse consequences to the intensity and frequency of droughts in the semiarid region.

3.3. Impact and Vulnerability Assessment

The Brazilian territory is quite diverse with a variety of natural hazards that affect different parts of territory and population. In general, the main natural hazards are: floods, droughts, extreme temperatures, landslides, tropical cyclones, and infectious diseases. Its location in the tropics, with high temperatures and high potential of evaporation, provides large amounts of rainfall.

"Drought and excessive rainfall resulting in recurrent floods and landslides are the most frequent and disruptive risk events with important impacts on urban areas. Floods, landslides, and droughts have occurred regularly over the past century accompanied by significant mortality and social losses. Floods comprise more than

65% of natural hazards and heavy rainfall events which triggered flash floods and landslides accounted for 74% of disaster-related deaths in the period of 1991-2010” (World Bank, 2021).

Climate change is expected to increase the risk and intensity of water scarcity and drought across the country, with the main exception of the increase in precipitation experienced in the extreme south-central area of Brazil from the south of São Paulo. The main sectors affected are water, agriculture and livestock, forestry, and infrastructure.

Intense precipitations events have been more common and increased risks of flooding. These floods could have the potential to leach and erode soils and affect crops due to excess water, harming production and enhancing food insecurity, specially for agricultural products. Higher temperatures will increase soil moisture loss, which can lead to huge aridity affecting livestock and crops, causing economic losses, damaging farmland, infrastructure, and communities.

It is important to note that small farmers are more vulnerable to the impacts of disasters (floods, dry periods) because they have limited resources to combat risk and emergencies and improve their resilience. In addition, land degradation and soil erosion exacerbated by recurrent floods and droughts negatively affect the agricultural production and thus the livelihoods of poor rural people.

Tanure (2020) indicated that in RCP 4.5 scenario, Ceará would have an agricultural productivity reduction of 5.4% in the 2021-2050 period and an increase of 2.0% in 2051-2080. In the RCP 8.5 scenario, yields may fall 19.8% between 2021-2050 and 24.8% between 2051-2080.

The family farming crops most sensitive to negative effects by climate change would be cassava, corn, coffee, beans, cotton, tobacco, oranges, and other forms of permanent farming. Crops such as rice, peanuts, pineapples, wheat, and other annual crops will be positively impacted on average. Considering cassava, corn, beans, and other permanent crops, the negative impacts are more intense in the states of the North and Northeast regions. Such crops are typical products used for subsistence in these regions of Brazil which may imply an effect on food security of family farmers. (Tanure, 2020).

3.4. Vulnerability of Subprojects

The following is a vulnerability subproject prognosis with a short description of the subproject and actual and future implications related to climate.

3.4.1. Agricultural Activities

The biggest concerns for agricultural production are water scarcity and increased evapotranspiration, which can decrease yields. Climate change can affect agriculture negatively even in regions where weather conditions are usually good for crop production. The main impacts of climate change on crops are presented below:

- Vegetation development can be hindered by pollination failures during flowering on very hot days (> 35°C), with excessive rainfall or other extreme events. Increased winter temperatures often lead to poor pollination, staggered flowering, reduced fruiting, and poor fruit quality;
- Changes in the distribution of existing pests, diseases, weeds, and increased threat of new species of insects and diseases;

- Increased incidence of physiological disorders such as burnt tips and blossom rot;
- Increased downgrading potential in product quality, e.g., due to increased incidence of sunburn on fruits or leaves;
- Increased risk of spread and proliferation of soil-borne diseases because of heavier rainfall events (together with warmer temperatures);
- Increased risk of soil erosion and off-farm effects from the spread of fertilizers and pesticides in extreme wind or rainfall events;
- Increased costs of production, especially fertilizers and pesticides, caused by higher incidence of soil erosion, plant diseases and pests.

The Local Rural Development Plans (PDs) will be implemented in existing agricultural areas and will not directly contribute to the deforestation of any additional area. The plans will also introduce agroecological practices with more diverse crop systems that can reduce environmental degradation and increase climate resilience, with reduced vulnerability to pests and diseases. Native and drought resistant species present in the region will be used, without the introduction of new exotic species, in particular for the implementation of fences and windbreaks to protect cultivation areas, contributing to the reduction of evapotranspiration and consequently water consumption.

The preparation of Environmental and Social Management Plans (ESMP/PGAS) will occur simultaneously with the preparation of each PD. These plans provide a simplified Environmental and Social Impact Analysis and will assist in the design of PDs to promote and encourage the adoption of agroecological practices and diversified production. The PGAS will also serve as a tool for diagnosing the territory's natural resources and climate vulnerabilities, identifying degraded areas and areas to be protected, as well as climate adaptation measures, allowing specific investments to be made on environmental themes in the Environmental PD, complementing the social and economic activities of the PD.

Main Vulnerabilities:

- Excessive rainfall;
- Lack of rainfall;
- Excess hot flashes;
- Instability in annual heat-cold system;
- Excessive and strong winds.

Agroforestry Systems – AFS

Agroforestry Systems (AFS) - Agroforestry is the intentional integration of trees or shrubs with crops and/or livestock at the plot, farm, and/or landscape scale for developing agroecosystems that mimic natural ecosystems in terms of nutrient cycling and biodiversity (structurally and functionally). AFSs are a climate change adaptation strategy to increase the resilience of farmers and agricultural systems against climate risk, providing a range of biophysical and socioeconomic benefits through the taxonomic and spatial diversification of agricultural outputs and microclimates, therefore, reducing farmer vulnerability to climate variability and their dependence on external outputs (e.g., fertilizers and biocides).

Moreover, AFS are a promising agroecological approach to climate change because of the multitude of co-benefits that many agroforestry systems provide in addition to climate change adaptation, including synergies with climate change mitigation through carbon sequestration, enhanced food security and income opportunities, the

provisioning of ecosystem services, and biodiversity conservation. Agroforestry Systems contribute to better temperature stabilization, humidity, and soil moisture, and provide resilience against strong rains and winds. The implementation of these systems will increase crop diversity, reducing revenue variability and vulnerability to pests and diseases. AFSs also promote the restoration of degraded areas and watersheds.

The expected positive effects of AFSs may be enhanced by ATER actions that support farmers in the transition to agroecological practices, which reduce the use of chemical pesticides and synthetic fertilizers, replacing them with natural and mechanical inputs (biofertilizers, organic composts, biopesticides, mechanized mowing, etc.). These practices also bring expected positive effects on soil, water, and marketed products.

Nonetheless, the establishment and development of such systems is vulnerable to climate patterns at different stages. Water shortages, droughts or heavy rains may negatively affect seedling production, tree planting, tree fructification, tree establishment and growth (especially for fruit and forage trees). Agroforestry systems are still somewhat vulnerable to situations such as the proliferation of new pests and diseases, edge effects (which reduces the system's effectiveness) or forest fires during large periods of extreme heat and drought.

Main Vulnerabilities:

- Excessive rainfall;
- Lack of rainfall;
- Excess hot flashes;
- Instability in annual heat-cold system.

3.4.2. Livestock and Free-Range Poultry

Small livestock (pigs, goats, and sheep) and free-range poultry are extensive farming systems and do not confine animals. Therefore, there is a low risk of animals dying by excess heat, especially if in the presence of shading (e.g., agroforestry). However, ensuring animal thermal comfort is key to ensure animal health and consequent productivity of meat and milk and adequate rates of herd reproduction.

Climate Change will lead to increased temperatures and alter rainfall distribution, directly affecting the production of forage crops, increasing feed scarcity periods, and reducing production levels.

Abrupt changes in temperatures, extreme temperatures and high levels of humidity can result in an increase of pests and diseases for animals and feeding crops, leading farmers to respond with an intensive use of medications and pesticides. This entails health risks for farmers, animals, and the contamination of the environment. In general, part of the solution is related to better management of the agroecosystems with the spatial diversification of plant strata and species allowing for an Integrated Pest Management (IPM) approach.

Agroforestry Systems can be introduced for forage support, preventing the degradation of native vegetation, and reducing pesticide use, in addition to other environmental results, such as restoration of degraded areas and water sources. Degraded areas will be recomposed with vegetation, using native species and other species adapted to the Caatinga biome. These actions need to be well guided by ATER provided by Paulo Freire II Project.

Main Vulnerabilities:

- Excessive rainfall (heavy rains);
- Lack of rainfall (droughts);
- Excess hot flashes

3.4.3. Water supply structures

Community water supply systems (WSS) - Integrated system for rural water and sanitation (SISAR)

The project will install new water supply systems (WSS) and improve, expand, and rehabilitate existing WSS. The collective WSS must be operated by community associations in conjunction with the multi-community model, Integrated Rural Sanitation System (SISAR), which has been operating throughout the State of Ceará since 1996 and is already a consolidated model. The systems must be operated and maintained by community associations and cooperatives that benefit from the Project. Financial sustainability will be guaranteed by SISAR's existing tariff structure.

The technical solution adopted by SISAR is based on the model already used by CAGECE, comprising of:

- (1) capture of water from an available source (groundwater or surface water);
- (2) pumping systems to carry water to the Treatment Station (ETA);
- (3) water treatment plant (ETA), where the water is treated;
- (4) reservoir of treated water, ready for distribution;
- (5) piping system for the distribution of treated water to the consumer's residence where, at the entrance to each location, a water meter is installed.

The water treatment technology of each system will depend on the quality of the water source, and it will be defined during the design of each project.

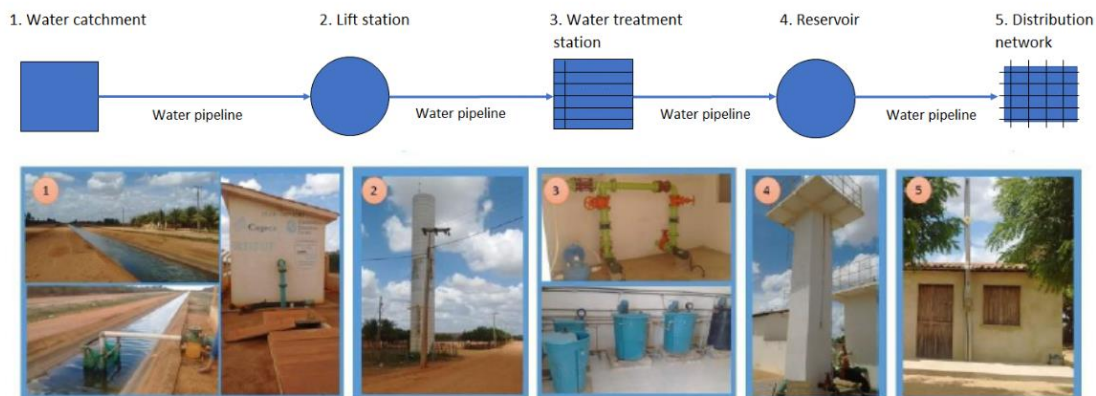


Figure 18: Water Supply Systems developed by SISAR

Household Cisterns

Two types of cistern subprojects will be implemented in rural communities by Paulo Freire II Project: for domestic consumption (16000 L) and for agricultural production (52000 L). The cisterns will be built using pre-molded plates, based on a social

technology developed in the Northeast Region and allow the capture and storage of rainwater from the roof of houses.



Figure 18: 16 thousand Liter Plate Cisterns - Cisterns Program⁷

The domestic cisterns (first water) hold 16 thousand liters and have the main objective of providing families with access to quality water in sufficient quantity for human consumption during the dry period. Production (or second water) cisterns allow water to be stored during rainy periods for agricultural production purposes, both for “wetting” small agricultural areas, and for animal consumption.

The vulnerabilities of water supply systems are mainly linked to the lack of rainfall, which can interrupt the system functioning (especially in the case of surface abstraction) or cause an increase in demand above the limits of treatment capacity. Long dry periods can also cause cracks on the cistern walls during extreme heat events, making them unusable for water storage. Secondly, excessive rainfall can be mentioned in situations that may involve mass landslides or flooding that eventually may reach the structure.

Main Vulnerabilities:

- Lack of rainfall (mainly in surface abstraction and increased consumption)
- Excess hot flashes (increased consumption and cistern cracking).
- Excessive rainfall (for specific situations of structures location).

3.4.4. Sanitation Structures

The Project will carry out activities for the implementation of several types of systems for sewage treatment:

- Greywater reuse systems (community and household);
- Home Sanitary Modules (toilets and washing tanks) with domestic sewage treatment (examples: Banana Tree Circle, Biodigester, Septic tank with sinkhole);

7

https://www.mds.gov.br/webarquivos/arquivo/seguranca_alimentar/cisternas_marcolegal/tecnologias_sociais/IOESAN_n2de882017.pdf

Greywater Reuse Systems

The Project will work with some communities in a pilot format with the community greywater reuse system, reducing the disposal of contaminated water in the environment. There will be a gray water collection network connected to an effluent treatment station, and the treated effluent will be used to irrigate agricultural areas, mainly forage.

The Project will also fund household water reuse systems, a social technology that increases water availability to farming families. The system collects, treats, and reuses domestic gray water (bath, sink and laundry) that previously went directly into the ground. After the filtering process, this water can be used to strengthen productive areas near the household, contributing to food and nutritional security, in addition generating income. Greywater reuse technologies increase the resilience of communities to extreme weather events such as prolonged droughts or periods of below-average rainfall.

Home Sanitary Modules with domestic sewage treatment

Toilets and washing tanks will be installed, depending on the physical environmental and climatic local characteristics as well as the local culture in case of indigenous or quilombola communities. The modules will be linked to treatment systems such as Septic tanks with sinkholes, Biodigesters, Built Wetland Systems (SAC) and Banana Tree Circles.

The following Figures present some examples of the systems proposed in the Project - Typologies of Subproject Infrastructure.

Banana Circle Scheme

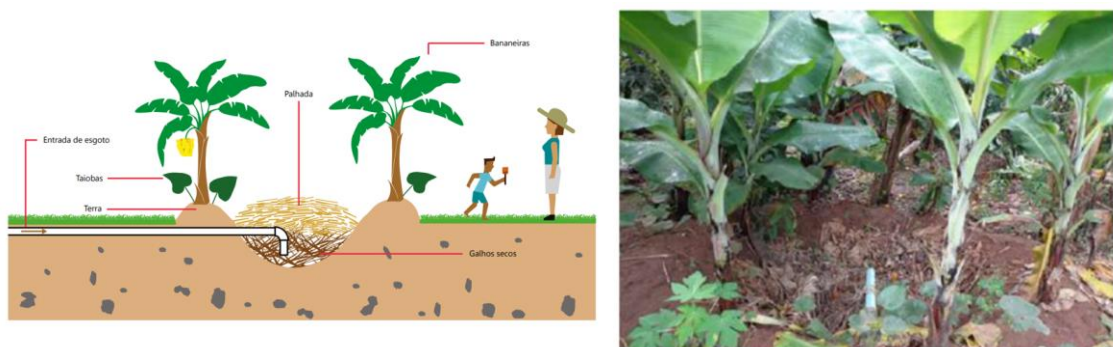


Figure 19: Banana Circle Scheme. Source: BRASIL et al, 2018

Biodigester

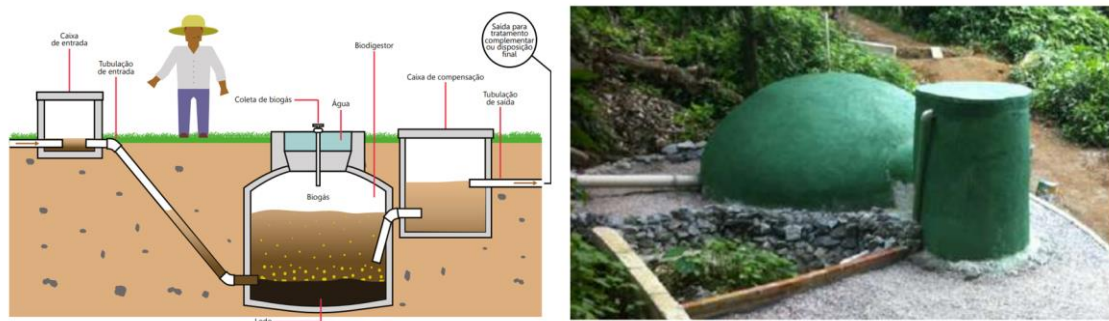


Figure 20: Biodigester. Source: BRASIL et al, 2018.

Built Wetland Systems



Figure 21: Built Wetland Systems. Source: CAGECE.

The vulnerabilities of water sewage systems are mainly linked to excessive rainfall in situations that may involve mass landslides or floods that eventually can reach structures. Secondly, the lack of rainfall can be mentioned which could affect systems operation.

Main Vulnerabilities:

- Excessive rainfall (for specific situations of structures location);
- Lack of rainfall (reducing flows and affecting the operation of systems);

3.4.5. Water Resources

The main consequences of climate change related to water resources include both the reduction in their availability or excess water during extreme events. Hence, agroecosystems need to be designed to address these two extremes, through the adoption of infrastructure, agronomic, forestry and animal husbandry measures along with common watershed management practices (restoration of riparian vegetation, contour planting, conservationist road lay outs, etc.).

Furthermore, climate change can have a significant impact on agriculture by increasing water demand, limiting crop yields, and reducing water availability for different uses. This situation may create or exacerbate conflicts on water extraction

and use rights. Hence, Technical Assistance personnel and farmers should become familiar with the Brazilian National Policy on Water Resources (Law 9.4333-/1997), and its instruments (notably the watershed committees) to prepare for or manage eventual conflicts.

As for the issues caused by prolonged or severe rains, these may also be addressed by the adoption of infrastructure, agronomic, forestry and animal husbandry measures along with common watershed management practices mentioned above. One issue, however, may deserve special attention: soil erosion. At the farm level, adoption of contour planting, minimum tillage/mulching, and appropriate lay out of roads and accesses can prevent both laminar and gully erosion. However, the effectiveness of such measures may depend also on their adoption by neighbors within a (micro) watershed. The construction of underground dams or small drainage ditches along roadsides, or within pastures and fields, can store storm water in soil, at the farm or watershed, mitigating the effect of drought or hot spells.

Main Vulnerabilities:

- Lack of rainfall;
- Excess hot flashes.

3.4.6. Human Health

The project is not expected to make any investment that could result in the attributable and significant increase in the morbidity rate of vector borne diseases. The proposed agroecological approach will increase species richness and spatial heterogeneity that should create a niche for a host of species that contributes to natural control of population sizes via predator-prey interactions. No works foreseen in the project are expected to result in impoundments to could provide breeding ground for disease vectors mentioned below (insects and snails).

The main conclusions of IPCC's Sixth Assessment Report (2023) showed the aspects of climate change's impacts on human health, highlighting that the hazards and associated risks expected in the short term include increased heat-related human mortality and morbidity (high confidence), diseases transmitted by food, water, and vectors (high confidence), and mental health challenges.

It is important to highlight that climate change will cause diverse impacts according to regional and/or local characteristics and variations in the behavior of disease vectors. Several diseases can be exacerbated or have their regional boundaries expanded.

It is important to highlight Soares (2021):

"Studies show that air temperature interferes with dengue transmission, as it affects several aspects of the mosquito's life, such as the blood meal of females, their longevity, and the extrinsic incubation period of the virus. It is a fact that high levels of precipitation, high levels of air temperature, proximity to urban peripheries, and low income of the population are factors that favor the spread of the disease."

"The epidemic diseases most affected by climatic events are: malaria, dengue, cholera, and other waterborne infections. In Brazil, the most relevant cases associated with climatic extremes are malaria and dengue. Although there is

"evidence of the influence of climate on the occurrence of some diseases, not all climate-sensitive diseases are yet known."

It can be assumed that in addition to Dengue and Malaria, diseases such as yellow fever, Zika and Chikungunya may also be affected by climate change and impact more regions and more communities, since these arboviruses need mosquitoes to be transmitted.

Dengue

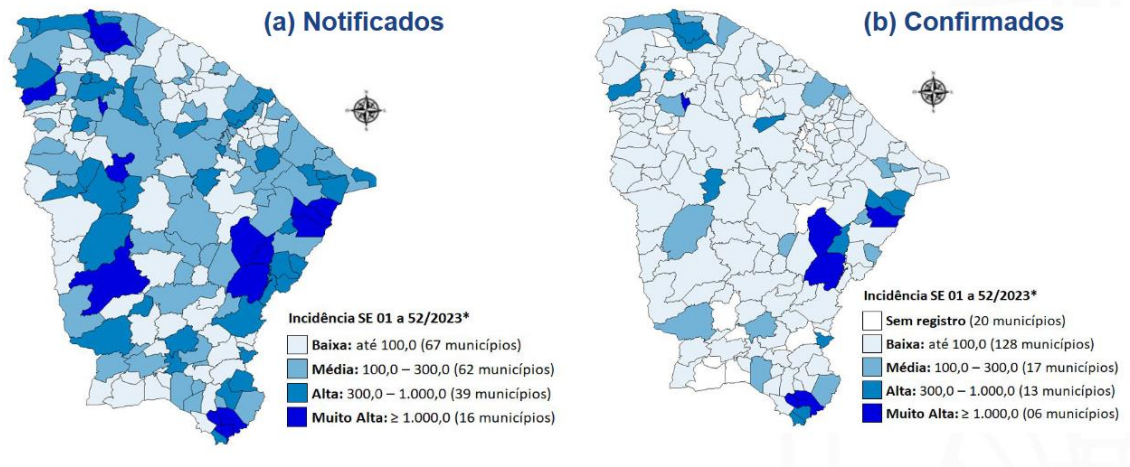


Figure 22: Classification of the dengue incidence rate in municipalities according to the number of reported and confirmed cases, Ceará 2023. Source: SESA 2024.

Chikungunya

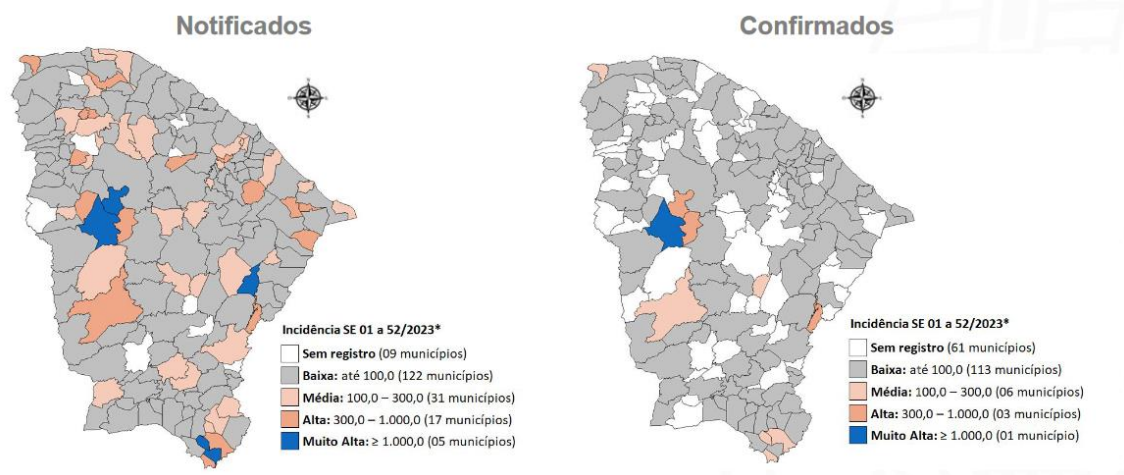


Figure 23: Accumulated incidence of reported and confirmed cases of chikungunya by municipality of residence, Ceará, 2023. Source: SESA 2024.

Zika

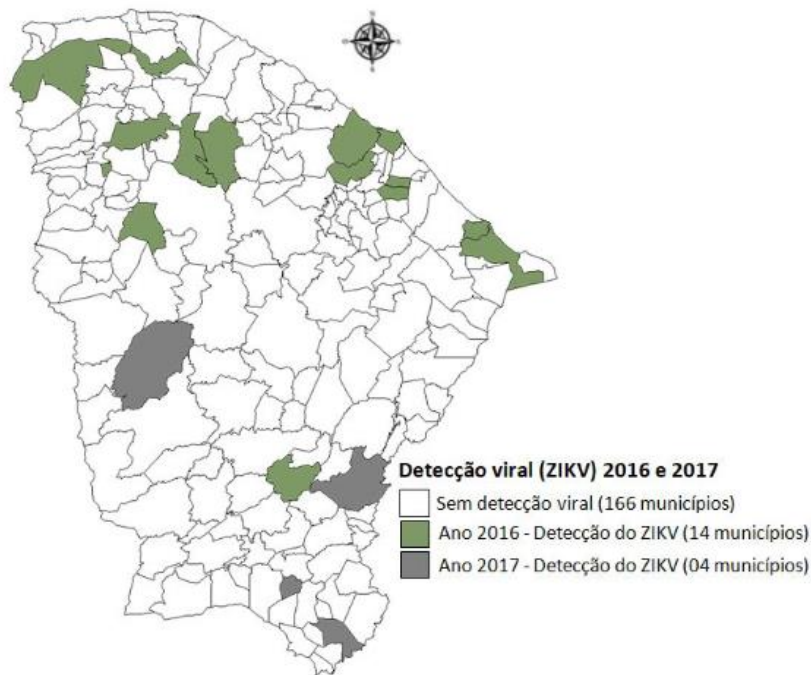


Figure 24: Municipalities with ZIKV detection in the PCR test, Ceará, 2016 to 2017. Source: SESA 2024.

In 2023, 1073 suspected cases were reported, of which 1.0% (11/1073) were confirmed. The incidence rate of cases reported in 2023 was 12.2 cases per 100 thousand inhabitants, considered low.

Two key issues must be considered in the process of monitoring, controlling, and combating transmissible diseases: those that already exist in the region covered by Paulo Freire II Project and that may affect more communities; and those that do not currently exist in the territory and may expand due to climate change influence works in new places.

American Cutaneous Leishmaniasis (ACL)

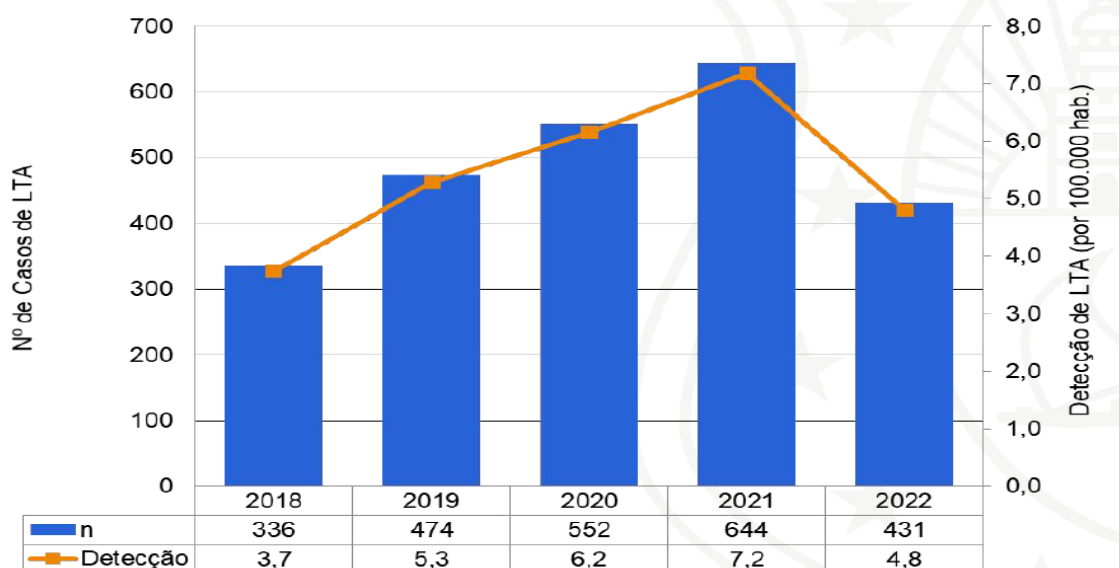


Figure 25: Distribution of ACL cases and detection coefficients (per 100,000 inhabitants), Ceará, 2018-2022 (N=2,437). Source: SESA 2023

Ceará is one of the states in northeastern Brazil where the disease occurs most frequently. From January 2018 to December 2022, 2437 cases were diagnosed, with an average of 487 cases per year. Detection coefficients showed an upward trend of 94.6% from 2018 to 2021, followed by a decline in 2022, when 4.8 cases per 100,000 inhabitants were recorded. During the entire period, the peak value was identified in 2021, with 7.2 cases per 100,000 inhabitants.

Initially considered a zoonosis of wild animals, which occasionally affected people in contact with forests, ACL began to occur in rural areas that were already deforested and in suburban regions. There is a double epidemiological profile, expressed by the maintenance of cases arising from old foci or from areas close to them, and by the appearance of outbreaks associated with economic activities, such as mining, expansion of agricultural frontiers and extractivism, in environmental conditions highly favorable to the transmission of the disease.

Schistosomiasis

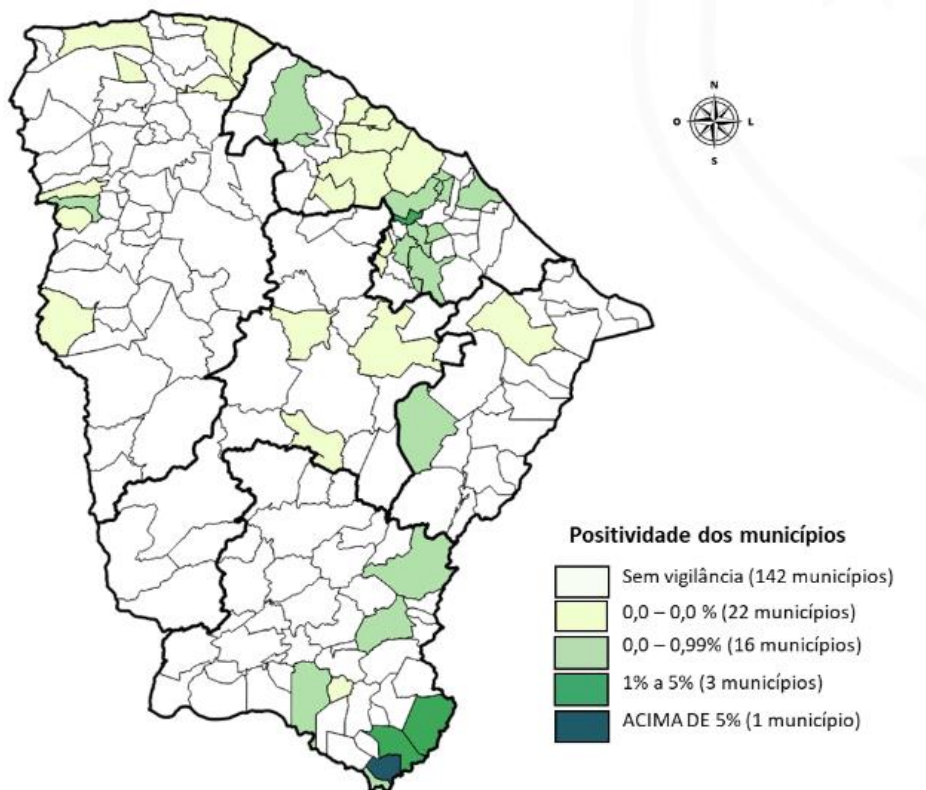


Figure 26: Spatial distribution of schistosomiasis mansoni positivity, Ceará, 2019 to 2022. Source: SESA 2023.

Schistosomiasis (*Schistosoma mansoni*, *Schistosomatidae* family) is a parasitic disease found in Brazil. This disease has a low lethality, and the main causes of death are related to severe clinical forms. The intermediate host in Brazil are the snails of the genus *Biomphalaria*: *B. glabrata*, *B. tenagophila*, and *B. straminea*, responsible for the transmission. BARCELLOS (2017) indicates that climate change may favor the disease, since the heaviest rains generate various overflows in streams and lagoons, being a vehicle for snails:

"The vector presents a determined seasonal behavior and is generally associated with periods of greater rainfall when the breeding sites present a better situation for vector reproduction and contagion by the parasite. Rainfall patterns can directly influence the maintenance of abiotic factors (temperature, pH, salinity) related to breeding sites, providing ideal conditions."

Chagas Disease

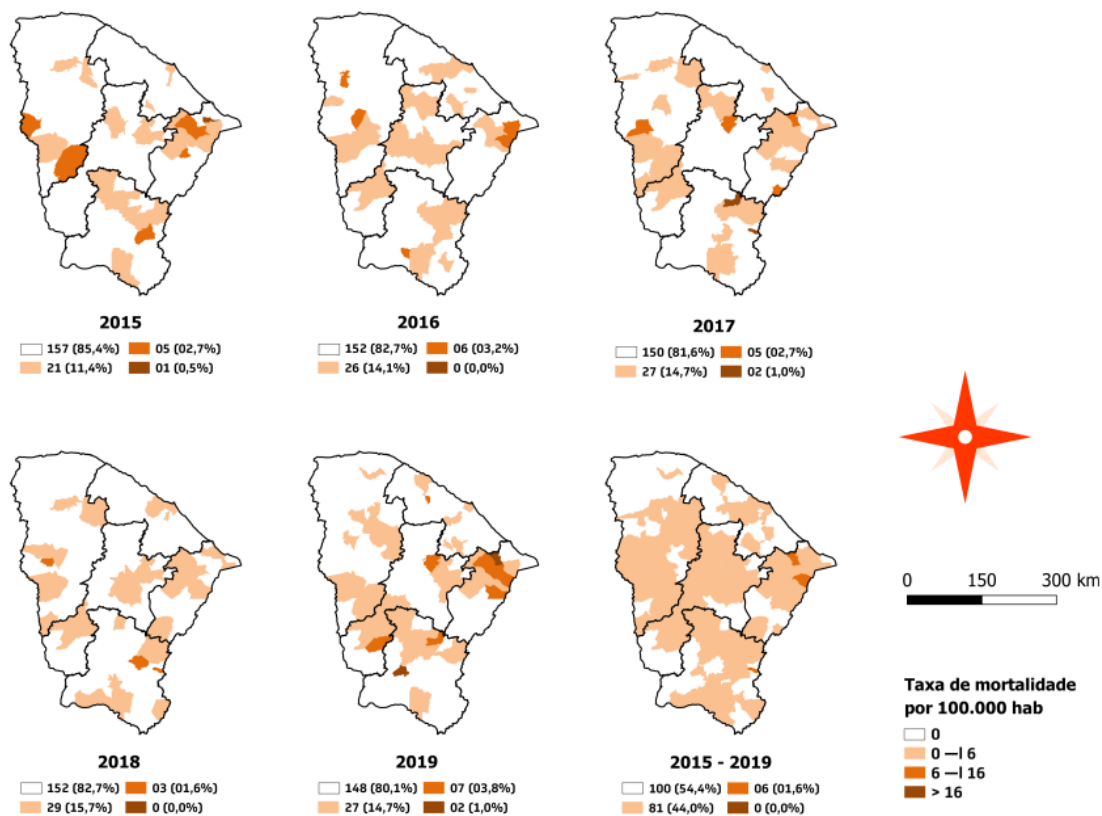


Figure 27: Spatial distribution of the mortality rate due to Chagas disease by municipality of residence, according to year of occurrence. Ceará, 2015 to 2019. Source: SESA 2021.

Another disease that can affect communities is the well-known "Chagas disease" (American trypanosomiasis). It is transmitted by the insect vector known as the 'kissing bug'⁸ and can cause serious health problems if not diagnosed and treated early. In Brazil It is estimated that there are about 1 million infected people. Currently, it is the disease that occupies the fourth cause of death among infectious and parasitic diseases in the country, resulting around 4.5 thousand deaths per year. In addition to socioeconomic and cultural factors, environmental factors play an important role in determining Chagas disease. Climate change, deforestation and disorderly urbanization can alter the natural habitats of vectors, increasing the exposure of populations to the *Trypanosoma cruzi*. As shown in the figure, the high mortality rate in some places in Ceará demonstrates the effective risks of disease and exposes the coexisting vulnerabilities, considering that the ways of transmission are related to living and health conditions.

⁸ Known as Barbeiro in Portuguese language

Main Vulnerabilities:

- Excessive rainfall;
- Excess hot flashes.

3.4.7. Increase in the Use of Pesticides

Diseases that can affect cultivated plants are the result of the interaction between pathogens and hosts. Angelotti (2023) points out that:

“The environment acts on the host plant, on the pathogen and on the host-pathogen interaction. Thus, the severity of a disease, its distribution and incidence are conditioned by the direct action of the environment on the pathogen and indirectly of the environment on host plant. In this way, environmental factors play an important role in increasing or limiting the development of diseases, acting in the different phases of the disease cycle such as spore germination, infection, incubation, incubation period, symptom development, dispersion, and survival of the pathogen.”

The following table shows an example of the phases of a plant infection and the associated climatic factors that may contribute to or limit the infection's development.

Phase	Climatic factor
Infection	Leaf wetness (rain, dew); temperature
Incubation, latency, and growth of lesions	Air and leaf temperature
Sporulation	Leaf wetness and/or high relative humidity; Temperature, Light, Radiation
Dispersion	Wind speed, temperature, relative humidity, leaf wetness, rainfall, or sprinkler irrigation (splashing)
Survival	Temperature and relative humidity, radiation

Table 1: Phases of Infection and Climatic Factors. Source: Embrapa Semiárid (Angelotti, 2023)

Angelotti (2023) points out that some studies in Brazil indicate that diseases can be reduced, for example the black Sigatoka from the banana tree. There will be a reduction in the area favorable to the disease in the country, according to disease distribution maps based on future climate scenarios by IPCC. On the other hand, there may be an increase in nematode infestation, due to the greater number of generations per month. Climate change will exert a strong influence on pests that affect cultivars, and it may generate exponential situations that cause local farmers to increase pesticide use, creating various problems for plants, fauna, water, and the health of communities.

Achieving an equilibrium between predators, preys and pathogens is a medium to long-term venture and pest outbreaks may occur during the transition from conventional agricultural practice to agroecological production systems leading to severe economic losses. Therefore, the use of pesticides cannot be ruled out during such occurrences. In order to avoid the misuse of these substances, Technical Assistance personnel and farmers need to be knowledgeable about the substances (their selectivity, toxicity and persistence in the environment) and the requirements

for their proper use (use of personal protective equipment -PPE, observance of prevailing weather conditions, and appropriate disposal) in order to make a judicious use in case of necessity.

Farmers with limited resources are often unwilling or unable to purchase the appropriate personal protective equipment (PPE). Therefore, climatic risks can increase the use of pesticides in the agricultural sector, consequently affecting human health.

Main Vulnerabilities:

- Excessive rainfall;
- Lack of rainfall;
- Excess hot flashes;
- Excessive and strong winds (spores' dispersal and limited application days).

3.4.8. Summary of Sector Vulnerability

Climate Events / Patterns	Sector Risks							
	Agricultural Activities	Agroforestry Systems – AFS	Livestock and Free-Range Poultry	Water Supply Structures	Sanitation Structures	Water Resources	Human Health	Increase in the Use of Pesticides
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Plant development impaired by excess rainfall. • Increased incidence of physiological disorders such as burnt tips and blossom rot. • Increased risk of spread and proliferation of soil-borne diseases due to heavier rainfall events (along with warmer temperatures). • Changes in the distribution of existing pests, 	<ul style="list-style-type: none"> • Plant development impaired by irregular rainfall. • Excess moisture in the AFS, leading to plant and animal diseases • Increased incidence of physiological disorders such as burnt tips and blossom rot. • Increased risk of spread and proliferation of soil-borne diseases due to heavier rainfall events (along 	<ul style="list-style-type: none"> • Increased number of pests and diseases for animals and feeding crops, leading to higher use of medication and pesticides. • Health and integrity of animals. • Animal thermal discomfort may cause 	<ul style="list-style-type: none"> • Lack of capacity to store water when rain patterns become more concentrated • Excess water in treatment systems. • Risks to structures in case of landslides or flooding. 	<ul style="list-style-type: none"> • Excess water in sewage treatment systems. • Risks to structures in case of landslides or flooding. 		<ul style="list-style-type: none"> • Increase transmissible diseases such as arboviruses (dengue, etc.), ACL or waterborne diseases (Schistosomiasis, etc.). 	<ul style="list-style-type: none"> • Increased frequency of pesticide use (leaf wetting).

Climate Events / Patterns	Sector Risks							
	Agricultural Activities	Agroforestry Systems – AFS	Livestock and Free-Range Poultry	Water Supply Structures	Sanitation Structures	Water Resources	Human Health	Increase in the Use of Pesticides
	diseases, and weeds, and higher threat of new insects and diseases, increasing production costs with pesticides. • Flooding/crop damage due to flooding, with the potential to destroy entire crops. • Increased risk of soil erosion and runoff of nutrients and pesticides from extreme precipitation events, increasing production costs.	with warmer temperatures). • Changes in the distribution of existing pests, diseases, and weeds, and increased threat of new insects and diseases. • AFS integrity (floods, landslides).	productivity losses.					
Lack of rainfall: Longer and more intense periods of	• Plant development impaired	• Plant development impaired:	• Decreased production	• Lack of water in systems	• Lack of water and reduced	• Excessive reduction in river flows		• Changes in the distributio

Climate Events / Patterns	Sector Risks							
	Agricultural Activities	Agroforestry Systems – AFS	Livestock and Free-Range Poultry	Water Supply Structures	Sanitation Structures	Water Resources	Human Health	Increase in the Use of Pesticides
drought; Increased Frequency of Droughts	<ul style="list-style-type: none"> • Crop failure or decreased yields • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases, increasing production costs with pesticides. 	<p>Seedling production, tree planting, tree fructification, tree establishment and growth negatively affected (especially for fruit and forage trees).</p> <ul style="list-style-type: none"> • Crop failure or lower yields (Resilience threshold of AFS reached) • Changes in the distribution of existing pests, diseases, and weeds, and increased threat of new insects and diseases. • Risk of fire. 	<p>of forage crops, increasing feed scarcity periods, and reducing production levels.</p> <ul style="list-style-type: none"> • Excess of Medications and Pesticides. • Health and integrity of animals. • Lack of Water for Animals 	<p>with surface abstractions .</p> <ul style="list-style-type: none"> • Risk to Structures (Cistern cracking) 	<p>flow in the systems.</p>	<p>affecting the biota and dependent communities.</p>		<p>of existing pests, diseases, and weeds, and higher threat of new insects and diseases.</p>

Climate Events / Patterns	Sector Risks							
	Agricultural Activities	Agroforestry Systems – AFS	Livestock and Free-Range Poultry	Water Supply Structures	Sanitation Structures	Water Resources	Human Health	Increase in the Use of Pesticides
Excess Heat flashes/ strokes	<ul style="list-style-type: none"> • Pollination failures during flowering on very hot days (> 35°C). • Crop failure or decreased yields (increased evapotranspiration without rainfall) • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases, increasing production costs with pesticides. • Increased potential for product quality downgrading, e.g., due to 	<ul style="list-style-type: none"> • Pollination failures during flowering on very hot days (> 35°C). • Crop failure or decreased yields (increased evapotranspiration without rainfall) • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases. • Increased potential for product quality downgrading, e.g., due to increased incidence of 	<ul style="list-style-type: none"> • Health and integrity of animals. • Animal thermal discomfort may cause productivity losses. 	<ul style="list-style-type: none"> • Increased water consumption. • Risk to Structures (Cistern cracking) 		<ul style="list-style-type: none"> • Increased surface water temperature, increasing evaporation and affecting aquatic biota. 	<ul style="list-style-type: none"> • Increase in arboviruses and Chagas due to changes in mosquito and "barbeiro" reproductive cycles. 	<ul style="list-style-type: none"> • Increase in pests requiring a greater amount of pesticides.

Climate Events / Patterns	Sector Risks							
	Agricultural Activities	Agroforestry Systems – AFS	Livestock and Free-Range Poultry	Water Supply Structures	Sanitation Structures	Water Resources	Human Health	Increase in the Use of Pesticides
	increased incidence of sunburn on fruits or leaves.	sunburn on fruits or leaves. • Risk of Fire						
Instability in the annual cold heat system	• Impaired flowering and fruiting.	• Impaired flowering and fruiting.						
Higher frequency of extreme winds	• Increased risk of soil erosion and off-farm effects from the spread of fertilizers and pesticides							<ul style="list-style-type: none"> • Increased dispersal of pests (by spores). • Limited conditions for pesticide application

4. ADAPTATION ASSESSMENT

"Climate change adaptation relates to the process of natural and human systems adjustment to climate behavior in the present and future. In human systems, adaptation seeks to reduce and avoid potential harm or exploit beneficial opportunities arising from climate change. In natural systems, human intervention attempts to support the adjustment of these systems to the current and future climate and its effects" (IPCC, 2018).

Thus, this chapter presents the main adaptation measures for the possible impacts identified. It is important to highlight that there is a high degree of uncertainty about when and how strong impacts could happen. Therefore, all proposed adaptation processes should be monitored to indicate whether any additional steps for the adaptation process are needed.

4.1. Identification of Measures to Adaptation for Possible Impacts of Climate Change

Adaptation measures can vary significantly with different climate change aspects. Usually there will be strategic measures (e.g., represented by national plans), support systems (e.g., warning systems for critical events) and local actions that will be employed by communities (modification of plantations, land care, watering, etc.). To achieve successful adaptation there needs to be synergy among the different categories of adaptation.

Both strategic measures and support systems need to be considered by local communities in their decisions. At a strategic level, several public policies and policy instruments can be important in considering alternatives in community organization and design of production systems. Therefore, it is important to provide Technical Assistance and Rural Extension within the scope of the Project so that communities can understand how to access existing national and/or state programs and keep up with the information available in monitoring systems. Activities here may include supporting family farmers in obtaining basic (a condition to the exercise of citizenship, which is often lacking), personal and landholding documentation necessary to access credit and forms of government support.

4.1.1. Strategic Measures

Capacity building of ATER agents in climate change and agroecology

A key measure to ensure the successful roll out of climate adaptation measures is the capacity building and strengthening of Technical Assistance (ATER) personnel about climate change and agroecology. Given the limited number of extension agents already familiar with these themes and the size of beneficiaries' population, capacity building, training, and learning activities are necessary to supply the necessary human resources to implement the Project.

As an example of the kind of effort necessary, the Universidade do Vale do São Francisco, (UNIVASF) created the "Low Carbon Emission Technologies Strengthening Coexistence with the Semiarid" course, in 2021. The course was created in

partnership with the Brazilian Foundation for Sustainable Development (FBDS), a non-profit organization (NGO) based in Rio de Janeiro and specialized in environmental research and extension projects under the Low Carbon Agriculture for Avoided Deforestation and Poverty Reduction program, (Phase II – Sustainable Rural Development in the Caatinga Project – PRS Caatinga).

The PRS - Caatinga sought to respond to some of the Caatinga's development challenges. It aimed at developing and disseminating sustainable low carbon/agroecological agricultural technologies to rural communities through knowledge management, capacity building and direct funding to agricultural activities. The Project was part of a broader initiative supported by the government of the United Kingdom, through its Department of Environment, Forestry and Rural Affairs (DEFRA), that consists of similar projects in the Cerrado and Amazon biomes.

The "Low Carbon Emission Technologies Strengthening Coexistence with the Semiarid" course trained professionals who work as extension workers in rural communities in technologies and practices aimed at Low Carbon Agriculture/agroecology. The ATER agents and family farmers were familiarized with new alternative models aimed at environmental preservation, participatory planning, and the construction of a social project that values rural populations and their traditions, complemented by the knowledge generated in academia. The course has a total workload of 450 hours, of which 390 hours are classes (theory and practice) and another 60 are dedicated to the preparation of the monograph. The first course was delivered during the COVID 19 pandemic, and relied initially on on-line courses that were complemented by presential courses once vaccine coverage allowed it. The course was highly successful, graduating 800 people, instead of the 125 original target, thanks to the blending of remote and presential teaching. Hence, making partnerships with institutions and programs that are already ongoing and with proven results can be a cost-effective manner of scaling up extension services capacity.

Capacity building of ATER agents about government policies and programs

In addition to becoming proficient in climate change and agroecology, the Project's extension workers will need to become knowledgeable about the government programs and government information systems created to support small family farmers' adaptation to climate change and agroecology. The following list presents a non-exhaustive list of government plans, policies, support systems and information services that should be considered by the Paulo Freire II Project.

- National Plan for Adaptation to Climate Change – PNA (<https://www.gov.br/mma/pt-br/assuntos/climaozoniodesertificacao/plano-nacional-de-adaptacao>)
- ABC+ Plan: Plan for Adaptation and Low Carbon Emissions in Agriculture (<https://www.gov.br/agricultura/pt-br/assuntos/sustentabilidade/planoabc-abcmais/abc/programas-e-estrategias>)
- PRONAF and PRONAF AGROECOLOGIA (Credit): <https://www.bndes.gov.br/wps/portal/site/home/financiamento/produto/pronaf-agroecologia>
- Inmet – Decision Support System in Agriculture – SISDAGRO (<http://sisdagro.inmet.gov.br/sisdagro/app/index>)
- Inmet – Fire Risk (<https://portal.inmet.gov.br/paginas/incendio>)

Embrapa (technical support) – working together with ATER

- Agricultural Zoning and Climate Risk Systems - SISZARC (<https://sistemasweb.agricultura.gov.br/pages/SISZARC.html>)
- ProAgro and ProAgro Plus (Climate Insurance): <https://www.gov.br/agricultura/pt-br/assuntos/riscos-seguro/programa-nacional-de-zoneamento-agricola-de-risco-climatico/proagro>

Policy coordination between PMU and government agencies, academia, and NGOs

To achieve the Project objective in a cost-effective manner, the Project Management Unit (PMU) may consider a number of partnerships with other government agencies, academia, and NGOs to benefit from synergies and consequent cost savings in implementing Project activities. Among such partnerships, academia may play a pivotal role in expanding climate change and agroecology knowledge among ATER agents and farmers.

Another example of partnership is the experience with the joint efforts (“mutirões”) to document rural women, carried out in collaboration with the National Institute for Colonization and Agrarian Reform (INCRA). This is an important activity to guarantee women's access to basic documents, such as identification and access to other public policies, and supported women in dealing with domestic violence.

4.1.2. On farm and community level climate adaptation measures

At the operational level, adaptation measures will be part of agroecological production models to be adopted at the farm level. The choice of possible adaptation measures will result from the dialogue between farmers and ATER agents. To increase sustainability of those measures, it is essential to have farmer ownership of what is to be done. In that sense, factors such as farmer’s skills, education, availability of labor, aversion to risk, and level of livelihood dependence on farm revenues will largely determine their decisions. The following tables present a non-exhaustive list of possible adaptation measures for the chosen Project investments, considering the likely climate events to affect the Project.

Agricultural Activities

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Plant development impaired by excess rainfall. • Increased incidence of physiological disorders such as burnt tips and blossom rot. • Increased risk of spread and proliferation of soil-borne diseases due to heavier rainfall events (along with warmer temperatures). • Changes in the distribution of existing pests, diseases, and 	<ul style="list-style-type: none"> • Promote the use of climate and weather information systems to family farmers (INMET or Regional). • Use of cover crops to reduce direct incidence of rain between planting seasons. • Prepare the soil with adequate drainage systems (e.g., contours, water retention basins, energy dissipators) and cover with local material

Trigger	Identified Risks/Impacts	Adaptation Measures
	<p>weeds, and higher threat of new insects and diseases, increasing production costs with pesticides.</p> <ul style="list-style-type: none"> • Flooding/crop damage due to flooding, with the potential to destroy entire crops. • Increased risk of soil erosion and runoff of nutrients and pesticides from extreme precipitation events, increasing production costs. 	<p>(branches, leaves, pebbles), reducing leaching and preventing erosion and water accumulation in crops</p> <ul style="list-style-type: none"> • Immediately apply treatment to any identified erosion process. • Be careful when choosing the location of crops, avoiding places that naturally flood, like places very close to rivers. Prioritize flood tolerant species for such areas. • Apply soil disease control practices and perform constant visual inspections to reduce the spread of diseases. (e.g., crop rotation, fallow, introduction of allelopathic species, soil fertility management). • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management) • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Manual weed control and mechanized mowing • Use of bioinputs such as biocaldas, composts, and biochemicals. • Turn to protections of ProAgro and ProAgro Mais. • Use of screens or other protection in case of hail. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
<p>Lack of rainfall: Longer and more intense periods of</p>	<ul style="list-style-type: none"> • Plant development impaired • Crop failure or decreased yields 	<ul style="list-style-type: none"> • Water storage. • Construction of wells • Look for climate resistant crops or varieties that are more

Trigger	Identified Risks/Impacts	Adaptation Measures
drought; Increased Frequency of Droughts	<ul style="list-style-type: none"> • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases, increasing production costs with pesticides. 	<ul style="list-style-type: none"> • Suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. • Promote and add value to crops and products from the local agrobiodiversity (caatinga)⁹ • Diversification of plant breeds and crops (multicrop / intercrop systems). • Increase soil organic matter content to improve soil structure and water and nutrient retention capacity. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management) • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Manual weed control and mechanized mowing • Use of bioinputs such as "biocaldas", composts, and biochemicals. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
Excess Heat flashes/strokes	<ul style="list-style-type: none"> • Pollination failures during flowering on very hot days (> 35°C). • Crop failure or decreased yields (increased 	<ul style="list-style-type: none"> • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops.

⁹ During the Project design field mission, the following local species were identified with productive potential: Xique xique, Mandacaru, Juazeiro, Umbu-cajá, Faveleira, Marmeleiro, Jucá, Jurema-preta, Oiticica, Aroeira, Sabiá, Feijão bravo, Catingueira, Emburana and Jandaíra (bee).

Trigger	Identified Risks/Impacts	Adaptation Measures
	evapotranspiration without rainfall) <ul style="list-style-type: none"> • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases, increasing production costs with pesticides. • Increased potential for product quality downgrading, e.g., due to increased incidence of sunburn on fruits or leaves. 	<ul style="list-style-type: none"> • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. • Promote and add value to crops and products from the local agrobiodiversity (caatinga) • Diversification of plant breeds and crops (multicrop / intercrop systems). • Increase soil organic matter content to improve soil structure and water and nutrient retention capacity. • Deploy agricultural systems with Agroforestry Systems, which contribute to temperature regulation. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management) • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Manual weed control and mechanized mowing • Use of bioinputs such as "biocaldas", composts, and biochemicals. • Use of physical protection (shading) to prevent excessive insolation.
Instability in the annual cold heat system	<ul style="list-style-type: none"> • Impaired flowering and fruiting. 	<ul style="list-style-type: none"> • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. • Promote and add value to crops and products from the local agrobiodiversity (caatinga)

Trigger	Identified Risks/Impacts	Adaptation Measures
		<ul style="list-style-type: none"> • Diversification of plant breeds and crops (multicrop / intercrop systems). • Deploy agricultural systems with Agroforestry Systems, which contribute to temperature regulation. • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers.
Higher frequency of extreme winds	<ul style="list-style-type: none"> • Increased risk of soil erosion and off-farm effects from the spread of fertilizers and pesticides 	<ul style="list-style-type: none"> • Installation of physical barriers (windbreaks) to reduce animal and plant exposure to strong winds.

Agroforestry Systems

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Plant development impaired by irregular rainfall. • Excess moisture in the AFS, leading to plant and animal diseases • Increased incidence of physiological disorders such as burnt tips and blossom rot. • Increased risk of spread and proliferation of soil-borne diseases due to heavier rainfall events (along with warmer temperatures). • Changes in the distribution of existing pests, diseases, and weeds, and increased threat of new insects and diseases. • AFS integrity (floods, landslides). 	<ul style="list-style-type: none"> • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Promote the use of climate and weather information systems to family farmers (INMET or Regional). • Prepare the soil with adequate drainage systems (e.g., contours, water retention basins, energy dissipators) and cover with local material (branches, leaves, pebbles), reducing leaching and preventing erosion and water accumulation in crops • Be careful when choosing the location of crops, avoiding places that naturally flood, like places very close to rivers. Prioritize flood tolerant species for such areas. • Apply soil disease control practices and perform constant visual inspections to reduce the spread of diseases. (e.g., crop rotation, fallow, introduction of allelopathic species, soil fertility management).

Trigger	Identified Risks/Impacts	Adaptation Measures
		<ul style="list-style-type: none"> • Provide adequate ventilation in AFS implantation. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management) • Manual weed control and mechanized mowing • Use of bioinputs such as biocaldas, composts, and biochemicals. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
<p>Lack of rainfall: Longer and more intense periods of drought; Increased Frequency of Droughts</p>	<ul style="list-style-type: none"> • Plant development impaired: Seedling production, tree planting, tree fructification, tree establishment and growth negatively affected (especially for fruit and forage trees). • Crop failure or lower yields (Resilience threshold of AFS reached) • Changes in the distribution of existing pests, diseases, and weeds, and increased threat of new insects and diseases. • Risk of fire. 	<ul style="list-style-type: none"> • Water storage. • Construction of wells • Use of hydrogel to support root systems during drought periods in addition to adequate irrigation practices (e.g., micro dripping) • Increase soil organic matter content to improve soil structure and water and nutrient retention capacity. • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. • Promote and add value to crops and products from the local agrobiodiversity (caatinga) • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management)

Trigger	Identified Risks/Impacts	Adaptation Measures
		<ul style="list-style-type: none"> • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Manual weed control and mechanized mowing • Use of bioinputs such as “biocaldas”, composts, and biochemicals. • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. • Provide community fire brigades. • Provide fire-fighting systems and equipment (heat mufflers). • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
Excess Heat flashes/ strokes	<ul style="list-style-type: none"> • Pollination failures during flowering on very hot days (> 35°C). • Crop failure or decreased yields (increased evapotranspiration without rainfall) • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases. • Increased potential for product quality downgrading, e.g., due to increased incidence of sunburn on fruits or leaves. • Risk of Fire 	<ul style="list-style-type: none"> • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. • Promote and add value to crops and products from the local agrobiodiversity (caatinga) • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. • Increase soil organic matter content to improve soil structure and water and nutrient retention capacity. • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage

Trigger	Identified Risks/Impacts	Adaptation Measures
		<p>monitoring, soil fertility management)</p> <ul style="list-style-type: none"> • Manual weed control and mechanized mowing • Use of bioinputs such as biocaldas, composts, and biochemicals. • Provide community fire brigades. • Provide fire-fighting systems and equipment (heat mufflers).
Instability in the annual cold heat system	<ul style="list-style-type: none"> • Impaired flowering and fruiting. 	<ul style="list-style-type: none"> • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. • Promote and add value to crops and products from the local agrobiodiversity (caatinga) • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. <p>Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers.</p>

Livestock and Free-Range Poultry

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Increased number of pests and diseases for animals and feeding crops, leading to higher use of medications and pesticides. • Health and integrity of animals. • Animal thermal discomfort may cause productivity losses. 	<ul style="list-style-type: none"> • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Introduce, produce, and store fodder/rations and clean water storage and distribution systems as part of the agroforestry systems. This may include the procurement of feed choppers and construction of small facilities to support ration production and storage • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat

Trigger	Identified Risks/Impacts	Adaptation Measures
		<p>manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management)</p> <ul style="list-style-type: none"> • Livestock protection with straw structures, low perches, and installation of physical barriers to prevent access to unwanted locations; • Refuges need to provide protection, thermal comfort and be clean to prevent the appearance of diseases and pests; • Provide adequate and balanced food, and clean water to the animals; • Animals need to be submitted to health and zoonosis actions with the Technical Assistance team. • Manual weed control and mechanized mowing • Use of bioinputs such as biocaldas, composts, and biochemicals. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
<p>Lack of rainfall: Longer and more intense periods of drought; Increased Frequency of Droughts</p>	<ul style="list-style-type: none"> • Decreased production of forage crops, increasing feed scarcity periods, and reducing production levels. • Excess of Medications and Pesticides. • Health and integrity of animals. • Lack of Water for Animals 	<ul style="list-style-type: none"> • Water storage • Construction of wells • Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by EMBRAPA and native / traditional crops. • Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers. • Increase soil organic matter content to improve soil structure and water and nutrient retention capacity. • Introduce, produce, and store fodder/rations and clean water storage and distribution systems as part of the agroforestry

Trigger	Identified Risks/Impacts	Adaptation Measures
		<p>systems. This may include the procurement of feed choppers and construction of small facilities to support ration production and storage.</p> <ul style="list-style-type: none"> • Livestock protection with straw structures, low perches, and installation of physical barriers to prevent access to unwanted locations; • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management) • Manual weed control and mechanized mowing • Use of bioinputs such as "biocaldas", composts, and biochemicals. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
Excess Heat flashes/strokes	<ul style="list-style-type: none"> • Health and integrity of animals. • Animal thermal discomfort may cause productivity losses. 	<ul style="list-style-type: none"> • Livestock protection with straw structures, low perches, and installation of physical barriers to prevent access to unwanted locations; • Refuges need to provide protection, thermal comfort and be clean to prevent the appearance of diseases and pests; • Provide adequate and balanced food, and clean water to the animals; • Animals need to be submitted to health and zoonosis actions with the Technical Assistance team. • Increase availability of trees for shading

Water Supply Structures

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Lack of capacity to store water when rain patterns become more concentrated • Excess water in treatment systems. • Risks to structures in case of landslides or flooding. 	<ul style="list-style-type: none"> • Increase storage capacity • Projects must consider the possibility of rainwater entering into systems, looking for simple treatment and avoidance solutions and guiding communities towards best practices; • The places where the systems will be installed must not be floodable, excessively humid, or prone to landslides. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas.
Lack of rainfall: Longer and more intense periods of drought; Increased Frequency of Droughts	<ul style="list-style-type: none"> • Lack of water in systems with surface abstractions. • Risk to Structures (Cistern cracking) 	<ul style="list-style-type: none"> • Use of wells to improve the guarantee of access to water and reduce pressure on surface water; • Water storage (e.g., cisterns). • Select materials that are resistant to cracking. • Guidance for communities on the rational use of water.
Excess Heat flashes/ strokes	<ul style="list-style-type: none"> • Increased water consumption. • Risk to Structures (Cistern cracking) 	<ul style="list-style-type: none"> • Use of wells to improve the guarantee of access to water and reduce pressure on surface water; • Water storage (e.g., cisterns). • Select materials that are resistant to cracking.

Sanitation Structures

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Excess water in sewage treatment systems. • Risks to structures in case of landslides or flooding. 	<ul style="list-style-type: none"> • Communities need to be guided on how to connect sewage systems, such as not connecting surface rain runoff to the sewage system; • Projects must consider the possibility of rainwater entering into systems, looking for simple treatment and avoidance solutions and guiding

Trigger	Identified Risks/Impacts	Adaptation Measures
		<p>communities towards best practices;</p> <ul style="list-style-type: none"> • The places where the systems will be installed must not be floodable, excessively humid, or prone to landslides. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas
Lack of rainfall: Longer and more intense periods of drought, Increased Frequency of Droughts	<ul style="list-style-type: none"> • Lack of water and reduced flow in the systems. 	<ul style="list-style-type: none"> • Use of wells to improve the guarantee of access to water and reduce pressure on surface water; • Water storage (e.g., cisterns). • Guidance for communities on the rational use of water.

Water Resources

Trigger	Identified Risks/Impacts	Adaptation Measures
Lack of rainfall: Longer and more intense periods of drought, Increased Frequency of Droughts	<ul style="list-style-type: none"> • Excessive reduction in river flows affecting the biota and dependent communities. 	<ul style="list-style-type: none"> • Use of wells to improve the guarantee of access to water and reduce pressure on surface water; • Guidance for communities on the rational use of water. • Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas.
Excess Heat flashes/strokes	<ul style="list-style-type: none"> • Increased surface water temperature, increasing evaporation and affecting aquatic biota. 	<ul style="list-style-type: none"> • Recovery of permanent preservation areas (riparian forest) around rivers and lakes to create suitable microclimates and avoid extreme heat, mainly due to excess sunlight directly on the water.

Human Health

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer,	<ul style="list-style-type: none"> • Increase transmissible diseases such as arboviruses (dengue, etc.), ACL or waterborne diseases (Schistosomiasis, etc.). 	<ul style="list-style-type: none"> • Actions in environmental and health education for communities in partnership with SESA (Ceará's Health Secretariat)

Trigger	Identified Risks/Impacts	Adaptation Measures
heavier rains) and frequency of extreme rainfall events		<ul style="list-style-type: none"> • Active actions to search for vectors, with appropriate application of any pesticides.
Excess Heat flashes/strokes	<ul style="list-style-type: none"> • Increase in arboviruses and Chagas due to changes in mosquito and "barbeiro" reproductive cycles. 	<ul style="list-style-type: none"> • Actions in environmental and health education for communities in partnership with SESA (Ceará's Health Secretariat) • Active actions to search for vectors, with appropriate application of any pesticides.

Increase in the Use of Pesticides

Trigger	Identified Risks/Impacts	Adaptation Measures
Excessive Rainfall: Increased intensity (longer, heavier rains) and frequency of extreme rainfall events	<ul style="list-style-type: none"> • Increased frequency of pesticide use (leaf wetting). 	<ul style="list-style-type: none"> • Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. • Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management)
Lack of rainfall: Longer and more intense periods of drought; Increased Frequency of Droughts	<ul style="list-style-type: none"> • Changes in the distribution of existing pests, diseases, and weeds, and higher threat of new insects and diseases. 	<ul style="list-style-type: none"> • Manual weed control and mechanized mowing
Excess Heat flashes/strokes	<ul style="list-style-type: none"> • Increase in pests requiring a greater amount of pesticides. 	<ul style="list-style-type: none"> • Use of bioinputs such as biocaldas, composts, and biochemicals. • Installation of physical barriers (windbreaks) to reduce animal and plant exposure to strong winds.
Higher frequency of extreme winds	<ul style="list-style-type: none"> • Increased dispersal of pests (by spores). • Limited conditions for pesticide application 	

4.2. Evaluation and selection of adaptation options

Once the potential adaptation options have been identified (which can be repeated in the various subprojects of Paulo Freire II Project), a General Framework of Adaptation Options has been elaborated. The next step is to evaluate and prioritize the options based on detailed information and criteria. These options should be assessed to

determine: their suitability for the local context; their effectiveness in reducing vulnerability or building resilience; and their broader impact on sustainability.

It is important that the selection and ranking presented here is timely discussed with stakeholders and technicians of ATER. It should be noted that the area of Paulo Freire II Project is quite broad and diverse – thus, good practices that could have excellent results in a given location will not necessarily be the best fit for another.

Making decisions about adaptation options is a complex process, involving decision-makers from various sectors and experts who must deal with high levels of uncertainty. It is critical to choose adaptation options that are effective in increasing resilience as well as socially, economically, and politically feasible. Thus, it was considered appropriate to use a multicriteria analysis (MCA), which provides a wide range of information that may be relevant to make adaptation choices. MCA allows decision-makers to have a framework for comparing a set of options defined on diverse criteria so they can evaluate adaptation options on various priorities or values.

MCA is a performance matrix in which each row describes an option, and each column describes the performance of each option against each criterion. Individual performance appraisals are numerical values, with higher scores representing more preferred options. The individual scores can be combined into a final score for each option based on the weights assigned to each criterion. This matrix may be the product of an MCA analysis. For the present study, the MCA of IFAD's Adaptation Options Prioritization System was used.

A database of adaptation options and a system for evaluating and prioritizing adaptation options have been developed as part of IFAD's Adaptation Framework. Prioritization comprises two main elements: First, adaptation options are filtered based on the project sector and the climate risks identified during the climate screening process. Then, an MCA is carried out on the shortlist of adaptation options to help in the choice of measures that will be integrated into the Project, using the following criteria:

1. Technical feasibility
2. Cost-benefit
3. Addresses Climate Risk
4. Accessible to Communities
5. Flexibility
6. Co-benefit
7. Transformative potential
8. Complementarity to IFAD themes

The ranking of options uses a simple scoring system based on the eight criteria above. The first four criteria require 2 as a minimum score; Options that score less than 2 on any of these criteria do not meet the minimum requirements and it is not considered adequate. The fitting options with higher scores are the most suitable for a project. The following guidelines define how system users should score adaptation options for each of the assessment's criteria.

The following table shows the score for each criterion.

Criteria and scoring used

Criteria	Score Considered		
	1	2	3
Technical feasibility	Implementing partners have no experience implementing this type of adaptation option and there are no Project partners with this experience.	Implementing partners do not have direct experience with this adaptation option, but partners are available who can provide technical expertise and experience with this type of option.	Implementing partners have previously implemented this type of adaptation option and have this technical expertise.
Cost-benefit	The benefits are less than the costs (BCR < 1) over the lifetime of the option, even with indirect benefits included	The benefit-cost ratio is in the range of 1-2. The benefits of implementing the option are higher than the estimated costs over the lifetime of the option although the benefits are not large and may be distributed unevenly among beneficiaries.	The benefit-cost ratio is greater than 2. The benefits of implementing the option are significantly higher than the estimated costs over the lifetime of the option and should be readily achieved.
Addresses climate risks	The adaptation option is not relevant or may not be effective for the risks identified for the Project.	Adaptation option effectively addresses at least one of the identified risks.	Adaptation option is relevant for all of the major climate risks identified for the Project.
Accessibility for Project beneficiaries	Adaptation option is inaccessible for the main Project beneficiaries (e.g., unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the Project's target beneficiaries.	Adaptation option is accessible to Project beneficiaries and specifically benefits women or other marginalized groups.

Criteria	Score Considered		
	1	2	3
Flexibility	The adaptation option has a long lifetime (>10 years), and its design does not allow for any adjustment. For example, a flood defence designed to cope with an additional 1m of flooding, and which would have to be completely replaced if greater protection was required.	The adaptation option being considered has a short lifetime (<10 years) meaning that considerations of flexibility are not as relevant.	The adaptation option is low or no regrets or is part of an adaptive management approach. Low regrets mean the option has benefits across a wide range of conditions. Thresholds and trigger points identified in adaptation strategies support adjustments in response to new information, risks, or opportunities.
Mitigation co-benefits	No mitigation co-benefits or adaptation significantly increases greenhouse gas emissions.	Adaptation option leads to emissions reductions, either at present or in the future.	Adaptation option involves reforestation, restoration of carbon sinks, or the substitution of fossil fuels for renewable energy sources.
Transformative potential	Adaptation option is limited to small increases in the resilience of target group but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the option, for instance with a declining marginal cost.	Adaptation option enables change in the system in question which significantly increases opportunities for target beneficiaries to adapt to climate change.
Complementarity to IFAD themes	No complementarity	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes.	Complements more than one other cross-cutting theme to support systemic resilience.

Source: IFAD Guidance on Scoring Adaptation Options¹⁰

¹⁰<https://www.ifad.org/documents/38714170/42258938/Adaptation+Framework+-+Guidance+on+scoring+adaptation+options.pdf/8f1af83d-55d1-7b1a-9f6f-7f5b9c254e9b?t=1610117909000>

The following table presents options classification of adaptation considered.

Adaptative Options Score and Classification

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
1	Diversification of plant breeds and crops (multicrop / intercrop systems).	Agricultural Activities	3	3	3	3	3	3	3	3	24
2	Increase soil organic matter content to improve soil structure and water and nutrient retention capacity.	Agricultural Activities, Agroforestry Systems & Livestock and Free-Range Poultry	3	3	3	3	3	3	3	3	24
3	Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers.	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry & Increase in the Use of Pesticides	3	3	3	3	3	2	3	3	23
4	Recovery of permanent preservation areas (riparian forest) around rivers and lakes to create suitable microclimates and avoid extreme heat, mainly due to excess sunlight directly on the water.	Water Resources	3	3	3	3	2	3	3	3	23
5	Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry, Water Supply Structures, Sanitation Structures & Water Resources	3	3	3	3	2	3	3	3	23

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
6	Development of seed banks, botanical gardens, and promotion of germplasm exchanges between farmers.	Agricultural Activities, Agroforestry Systems & Livestock and Free-Range Poultry	2	3	3	2	3	3	3	3	22
7	Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests' population and damage monitoring, soil fertility management)	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry & Increase in the Use of Pesticides	2	3	3	2	3	3	3	3	22
8	Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by EMBRAPA and native / traditional crops.	Agricultural Activities, Agroforestry Systems & Livestock and Free-Range Poultry	3	3	3	2	3	2	3	3	22
9	Promote and add value to crops and products from the local agrobiodiversity (caatinga)	Agricultural Activities & Agroforestry Systems	3	3	3	2	3	2	3	3	22

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
10	Apply soil disease control practices and perform constant visual inspections to reduce the spread of diseases. (e.g., crop rotation, fallow, introduction of allelopathic species, soil fertility management).	Agricultural Activities & Agroforestry Systems	2	3	2	3	3	3	3	2	21
11	Manual weed control and mechanized mowing	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry & Increase in the Use of Pesticides	3	3	2	3	3	2	2	3	21
12	Promote the use of climate and weather information systems to family farmers (INMET or Regional).	Agricultural Activities & Agroforestry Systems	3	3	2	2	3	3	3	2	21
13	Use of physical protection (shading) to prevent excessive insolation.	Agricultural Activities	3	3	2	3	3	3	2	2	21
14	Water storage	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry, Water Supply Structures & Sanitation Structures	3	3	2	2	3	2	3	3	21

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
15	Actions in environmental and health education for communities in partnership with SESA (Ceará's Health Secretariat)	Human Health	3	3	2	3	3	1	3	2	20
16	Animals need to be submitted to health and zoonosis actions with the Technical Assistance team.	Livestock and Free-Range Poultry	3	3	2	3	3	2	2	2	20
17	Be careful when choosing the location of crops, avoiding places that naturally flood, like places very close to rivers. Prioritize flood tolerant species for such areas.	Agricultural Activities & Agroforestry Systems	3	3	2	3	3	1	3	2	20
18	Deploy agricultural systems with Agroforestry Systems, which contribute to temperature regulation.	Agricultural Activities	2	3	2	2	3	3	3	2	20
19	Immediately apply treatment to any identified erosion process.	Agricultural Activities	3	3	2	3	3	2	2	2	20
20	Increase availability of trees for shading	Livestock and Free-Range Poultry	3	3	2	3	2	3	2	2	20
21	Installation of physical barriers (windbreaks) to reduce animal and plant exposure to strong winds.	Agricultural Activities & Increase in the Use of Pesticides	3	3	2	3	2	3	2	2	20

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
22	Provide adequate ventilation in AFS implantation.	Agroforestry Systems	2	3	2	2	3	3	3	2	20
23	Use of bioinputs such as biocaldas, composts, and biochemicals.	Agricultural Activities, Agroforestry Systems, Livestock and Free-Range Poultry & Increase in the Use of Pesticides	2	3	3	2	3	2	2	3	20
24	Use of cover crops to reduce direct incidence of rain between planting seasons.	Agricultural Activities	2	3	2	3	3	3	2	2	20
25	Construction of wells	Agricultural Activities, Agroforestry Systems & Livestock and Free-Range Poultry	3	3	3	2	2	1	2	3	19
26	Guidance for communities on the rational use of water.	Water Supply Structures, Sanitation Structures & Water Resources	2	3	2	3	3	1	2	3	19
27	Increase storage capacity	Water Supply Structures	2	3	3	2	3	1	3	2	19

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
28	Introduce, produce, and store fodder/rations and clean water storage and distribution systems as part of the agroforestry systems. This may include the procurement of feed choppers and construction of small facilities to support ration production and storage	Livestock and Free-Range Poultry	2	3	2	2	3	3	2	2	19
29	Projects must consider the possibility of rainwater entering into systems, looking for simple treatment and avoidance solutions and guiding communities towards best practices;	Water Supply & Structures Sanitation Structures	2	3	2	3	3	1	3	2	19
30	Provide community fire brigades.	Agroforestry Systems	2	3	2	1	3	3	3	2	19
31	Select materials that are resistant to cracking.	Water Supply Structures	2	3	2	2	3	2	3	2	19
32	Active actions to search for vectors, with appropriate application of any pesticides.	Human Health	2	3	2	3	3	1	2	2	18

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
33	Communities need to be guided on how to connect sewage systems, such as not connecting surface rain runoff to the sewage system;	Sanitation Structures	2	3	2	2	3	1	3	2	18
34	Livestock protection with straw structures, low perches, and installation of physical barriers to prevent access to unwanted locations;	Livestock and Free-Range Poultry	2	3	2	3	3	1	2	2	18
35	Prepare the soil with adequate drainage systems (e.g., contours, water retention basins, energy dissipators) and cover with local material (branches, leaves, pebbles), reducing leaching and preventing erosion and water accumulation in crops	Agricultural Activities & Agroforestry Systems	2	3	2	2	3	2	2	2	18
36	Provide fire-fighting systems and equipment (heat mufflers).	Agroforestry Systems	2	3	2	1	3	3	2	2	18
37	Refuges need to provide protection, thermal comfort and be clean to prevent the appearance of diseases and pests;	Livestock and Free-Range Poultry	2	3	2	3	3	1	2	2	18

	Adaptative Options	Subproject / Activity	Technical feasibility	Cost-benefit	Addresses climate risks	Accessibility for beneficiaries	Flexibility	Co-benefits	Transformative Potential	Complementarity to IFAD themes	Total
38	The places where the systems will be installed must not be floodable, excessively humid, or prone to landslides.	Water Supply & Structures Sanitation Structures	3	3	2	3	1	1	3	2	18
39	Turn to protections of ProAgro and ProAgro Mais.	Agricultural Activities	2	3	2	2	3	2	2	2	18
40	Use of hydrogel to support root systems during drought periods in addition to adequate irrigation practices (e.g., micro dripping)	Agroforestry Systems	2	3	2	2	3	2	2	2	18
41	Use of wells to improve the guarantee of access to water and reduce pressure on surface water;	Water Supply Structures, Sanitation Structures & Water Resources	2	3	2	2	3	1	2	3	18
42	Provide adequate and balanced food, and clean water to the animals;	Livestock and Free-Range Poultry	2	3	2	2	3	1	2	2	17
43	Use of screens or other protection in case of hail.	Agricultural Activities	2	3	2	2	3	1	2	2	17

Of these the 43 adaptation options presented, 24 were considered very suitable for the Paulo Freire II Project. It is important to consider:

- The adaptation options are repeated in part of the subprojects but were considered only once for classification purposes. A column was added to identify which subprojects are linked to each adaptation action;
- All 43 options are feasible. The previous selection of options has already discarded those that would be unrealistic for the communities targeted by the Project (e.g., the construction of a complex irrigation system typical of monocultures);
- It is very important that the present evaluation be transmitted to Technical Assistance (ATER) technicians, to increase its effectiveness for the Project and communities, considering that the solutions may vary according to the location of

subprojects, given the size and diversity of the area covered by Paulo Freire II Project.

Additional measures to reduce Project vulnerability to climate change

The measures presented below include additional actions that should contribute to the reduction of vulnerability levels assessed in this document. The measures aim to achieve better results in climate adaptation and reducing identified risks.

Measures to reduce the vulnerability of production systems in the Local Development Plans (PDs)

In the Local Rural Development Plans (PDs), the Project will encourage good practices of adaptation to climate change and the management of natural resources. Project technicians will conduct an in-depth climate vulnerability assessment during the planning of each PD, identifying potential high-risk areas where the combination of environmental degradation and expected climate change could result in increased potential for droughts, fires, or other climate-related impacts. These assessments should support the design of PDs regarding risk mitigation measures that may involve support for Integrated Fire Management and agroecological / agroforestry practices that reduce the vulnerability of agroecosystems to climate variability.

Using the ESMP (PGAS) as a tool, all PDs should incorporate into its content structure a chapter called "Adaptation and mitigation to climate change", which will contain information related to climate threats, climate risks, exposure, level of vulnerability, and adaptation measures to be implemented (risk management and climate resilience). This chapter will be developed considering the information generated in the Targeted Adaptation Assessment (TAA), the development of diagnostic instruments at the local level, the need for environmental and operating licenses, and the production process discussed and agreed with the protagonists of the Project.

After climate risk evaluation is performed of each PD, a comprehensive hazard mapping and vulnerability and risk assessment (VRA) should be carried out.

It is important to highlight that the Project and subprojects shall consider effective and comprehensive adaptation measures. These measures should not be only a set of crops, techniques, and practices often implemented individually by local producers. They should encompass actions in technical agricultural packages that bring resilience to climate change based on experimentation. The proposal needs to embody the development of planned actions to adaptation instead the spontaneous actions to adaptation, involving ATER technicians, local scientific institutions, and research centers (universities, NGOs, EMBRAPA, and others). In general terms, the following actions are recommended:

- Effective adaptation measures through the definition of climate-proof technical agricultural packages based on experimentation, community-based trial of proposed solutions, testing and revision of disasters, risk, and resilience plans;
- Measures to encourage integration of climate smart agricultural practices and nutrition in community plans;

- Alternative study to evaluate Project components that have the potential to suppress vegetation, indicating measures to reduce or avoid deforestation , prioritizing the preservation of endemic and native species;
- In situations where suppression is unavoidable, compensation measures such as tree planting must be applied, aiming at net environmental gain in the river basin.
- Assess connectivity of habitats and ecological corridors, indicating new corridors that can be promoted with restoration actions, in special riparian areas.
- Assess habitats vulnerability to desertification, loss of vegetation, etc.
- Refrain from implementing production activities in riparian areas and areas with high slopes, following the Brazilian Forest Code guidelines.
- Promote the substitution of monocultures by agroforestry systems;
- Promote species diversification and agroecological production systems that include native species and, when involving exotic species, consider the following criteria: exotic species is fully established, does not present an invasive or predatory pattern, has an ecological function in the local environment, and does not present toxicity to local insects, especially those that act in local pollination – with a focus on native bees.

Training program - methods of pest and disease control in production systems

Although the Project does not provide or encourage acquisition the use of chemical inputs, the risk of pesticide use by the beneficiaries was identified, given communities long standing habits and their ability to purchase and apply pesticides with their own resources. In this sense, two actions are indicated as recommended measures:

- To reduce and, as far as possible, combat the use of pesticides, it is important that the Project implements a training program for ATER technicians and beneficiaries regarding the use of these substances. In addition to other topics, the training should contain: (i) information and guidance regarding the prohibition and consequences of using certain substances; (ii) the correct use and application of substances (quantity, frequency, safety, transport, storage, prescription, handling, PPE); (iii) the benefits of ecological techniques that can efficiently replace the use of pesticides. The training program should be based on the recommendations of procedures established by EMBRAPA.
- ATER technicians should monitor and follow up on the methods and techniques applied by the communities in the implementation of Project actions, with the objective of mapping the intensification or reduction in the use of pesticides during the life cycle of the Project, applying guidance and adjustment measures to encourage the replacement of pesticides by more sustainable methods.

Training management and assistance teams in climate change resilience measures

There is also an opportunity and convenience to improve the institutional capacity of the PMU and partner ATER institutions to manage climate and resilience issues. It is expected that better results will be achieved in the dissemination of good practices and more effective implementation of the measures provided in the environmental and social documents. The training could incorporate topics such as:

- Knowledge of International Environment, Social and Climate Change Safeguards Policies;
- Guidance to prepare baseline knowledge on local risks, including research and consultation in scientific and academic institutions;
- Detailing the implementation of measures provided for Project's Environmental and Social Management documents (ESMF, ESMP, etc.).

4.3. Monitoring

It is important that the selection and ranking presented here is timely discussed among Project beneficiaries and ATER teams. Making decisions about adaptation options is a complex process, involving family farmers, decision-makers from various sectors and experts who must deal with high levels of uncertainty. It is critical to choose adaptation options that are effective in increasing resilience as well as socially, economically, and politically feasible.

The recommendations of this Targeted Adaptation Assessment should be implemented by the PMU with active participation of the ATER personnel. Proper monitoring is essential for the results to be achieved since it is through technical assistance that many communities will be aware of the challenges presented by Climate Change and by the possible responses it may enact to enhance its resilience and adaptive capacity. Monitoring is critical to ensure the long-term success of climate adaptation initiatives, plans, and actions. It plays an important role in the following aspects of adaptation:

- Monitoring the performance of the activities carried out during the development of the adaptation plan (e.g., AFS implementation activities).
- It determines whether the planned results and the results of adaptation actions have been achieved (e.g., AFS evolution indexes).
- Determines what adjustments should be made.
- It helps to determine if the actions are generating unforeseen side effects.

The PMU shall be responsible for the preparation of monitoring reports, procurement plans, cost estimates, and corrective action mechanisms that shall be implemented during the activities of this Target Adaptation Assessment.

5. COSTS AND BUDGET CONSIDERATIONS

The implementation of Targeted Adaptation depends on structuring actions (water access and reuse structures, etc.) and non-structuring actions (guidance of communities for development of AFS, livestock farming, avoid pesticides).

The following table presents budgetary considerations for the implementation of this Target Adaptation Assessment.

Budgetary considerations

Seq.	Description	Budget
1	Technical Assistance and Rural Extension (ATER) with Agroecological focus	Inserted in the Project Budget
2	Implementation of Water Access and sanitation Structures	Inserted in the Project Budget
3	Restoration of degraded areas	Inserted in the Project Budget
4	Development Plans based on Agroecological practices and agroforestry	Inserted in the Project Budget
5	Monitoring & Auditing	Inserted in the Project Budget

The Key to Project success is ATER's performance, since ATER personnel have not only the technical mastery, but also the ability to communicate adequately with the communities, creating bonds of trust and promoting knowledge transmission.

The key consideration for IFAD and for the PMU is to ensure that the terms of reference, MoU and other documents that lead to the ATER capacity building and hiring are explicit concerning the need for a strong grasp on climate change and agroecology. It may be that there are not enough human resources knowledgeable on climate change and agroecology (simultaneously) to deliver the Project. Hence, the capacity building measures may have to be blended with the hiring of ATER personnel (in some cases as precondition to hiring, in others, possibly and "on-the-job" training). In both cases, careful monitoring of capacity building and concomitant delivery of ATER services will be necessary to gauge the effectiveness of the uptake of climate change adaptation measures by the Project's beneficiaries.

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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: F Ater On Site And Remote Pilot Strategies

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Latin America and the Caribbean
Programme Management Department

ANNEX F: PROPOSAL FOR IMPLEMENTING ATER STRATEGIES UNDER THE PAULO FREIRE PROJECT - PHASE 2 (PPF II)

List of abbreviations and acronyms

ABC: Low Carbon Agriculture

ATER: Technical assistance and rural extension

ANATER: National Agency for Technical Assistance and Rural Extension

EMATER: Institute of Technical Assistance and Rural Extension

EMBRAPA: Brazilian Agricultural Research Corporation

IFAD: *International Fund for Agricultural Development*

INCRA: National Institute for Colonization and Agrarian Reform

IPEA: Institute for Applied Economic Research

MAPA: Ministry of Agriculture, Livestock and Supply

MDA: Ministry of Agrarian Development and Family Farming

MDS: Ministry of Social Development and Social Assistance, Family and Fight against Hunger

MMA: Ministry of the Environment

NGO: Non-governmental organization

PAA: Food Acquisition Program

PAS: Healthy Eating Program

PCT: Traditional peoples and communities.

PMU: Project Management Unit.

PNAE: National School Feeding Program

PNPCT: National Policy for the Sustainable Development of Traditional Peoples and Communities

PRONAF: National Program to Strengthen Family Farming

PRONATER: National Technical Assistance Program

SIRAF: Family Farming Regional Information System

1. Introduction

This document aims to present the Technical Assistance and Rural Extension (ATER) strategies to be implemented under the Paulo Freire Project - Phase 2 (PPF II) to address the challenges and opportunities identified in the region. To this end, the proposal is aligned with the principles of inclusion, social participation, diversity and sustainable development. This proposal seeks to integrate policies and elements from the Northeast region, specifically from the state of Ceará, a priority area and historically relevant to IFAD's work. The main objective is to highlight the importance of ATER as one of the means of reducing poverty in rural areas.

A thorough literature review was carried out, including consultation of IFAD's reference documents, as well as government documents highlighting the current scenario of public policies aimed at ATER and the promotion of family farming and rural development. In addition, documents related to projects and initiatives recently implemented by IFAD in the country were analyzed, along with working meetings and complementary interviews with state stakeholders, field visits.

The analysis also covered Law No. 11.326 of 24/07/2006, which deals with the regulation of family farming and rural family enterprises, and Law No. 12.188 of 11/01/2010, which establishes the National Policy for Technical Assistance and Rural Extension for Family Farming and Agrarian Reform - PNATER and the National Program for Technical Assistance and Rural Extension in Family Farming and Agrarian Reform - PRONATER. In addition to these, other laws and decrees were examined, which are detailed in section 2. These regulations aim to strengthen and regulate ATER policies in rural areas, increasing access, as well as providing qualification for this service.

In the context of Brazilian agriculture, these legislations highlights the strategic importance of Family Farming (FF) for food security and rural development. However, family farmers in Brazil are very diverse, which results in disparities, especially regarding the limited accessibility of Technical Assistance and Rural Extension (ATER) services for family farmers.

Faced with these challenges, Digital Technical Assistance and Rural Extension (Digital ATER) stands out as an innovative and strategic response to overcome obstacles in Family Farming. By integrating Information and Communication Technologies (ICTs), Digital ATER expands the capillarity of services, allowing remote access to information, technical knowledge and sustainable agricultural practices. Despite the benefits, such as reduced costs and increased efficiency, challenges such as limited connectivity in rural areas highlight the urgent need for improvements in communication infrastructure.

Thus, the Digital ATER proposed for the PPF II is not intended to replace traditional ATER, but when integrated in a balanced way, it is an important tool for contributing to strengthening and sustainable development.

The text is structured in four parts. After this introduction, section 2 provides a brief overview of family farming and the Technical Assistance and Rural Extension service in Brazil and Ceará, as well as the relevant legislation. Section 3 provides a theoretical debate and success stories on digital ATER, also indicating ways in which ATER is operationalized, and the complementarity between face-to-face, digital and hybrid

approaches. From there, section 4 proposes an Implementation Strategy and presents the Implementation Partners.

2. ATER IN THE PROJECT'S INTERVENTION AREA

According to data from the Brazilian Institute of Geography and Statistics - IBGE (2017), the state of Ceará has a population of 297,862 family farmers. Within this population, the availability of Technical Assistance and Rural Extension (ATER) services is limited, at approximately 11%. This proportion reveals a significant contrast with national data, where 18.2% of Brazilian family farmers have access to ATER services. It's worth noting that, despite this limitation, the rate of access to ATER in Ceará exceeds the regional average, which stands at 7.3% in the Northeast region. Among these families, 88% received the service from the government, 6% contracted ATER services with their own resources and 2% received technical assistance from cooperatives, as shown in Table 1.

Table 1 . Data from the Agricultural Census on the origin of ATER in Brazil and Ceará

Origin of Technical Assistance		Brazil	Ceará
Family farming	Total	3.897.408	297.862
	Government (federal, state or municipal)	307.167	28.573
	Own or producer's own	153.688	2136
	Cooperatives	182.295	675
	Integration companies	113.172	107
	Private planning companies	18.531	100
	Non-governmental organization (NGO)	6.729	388
	System S	5.234	139
	Other	36.906	857
	Does not receive	3.189.090	265.742

The analysis presented here also shows nuances in the technical assistance provided to family farmers in the state. Despite the diversity of sources, especially from cooperatives and civil society organizations, the state plays a major role in providing this service. In this scenario, the Technical Assistance and Rural Extension Company of Ceará (EMATERCE) is a major player, contributing to the sustainable development of family-based agriculture in the state for over 70 years.

According to data released by the Brazilian Association of Technical Assistance and Rural Extension, Agricultural Research and Land Regularization Entities (Asbraer), the official rural extension network served a total of 155,858 beneficiaries in the state of Ceará in 2023, and this network consists of 932 extension workers, 319 of whom have higher education qualifications.

These figures show and justify the expansion of the successful first phase of the Paulo Freire Project, pointing to a reality in which there is a need to expand the provision of ATER and train technicians and producers in more sustainable production practices.

The first phase of the PPF was implemented between 2013 and 2021 and the impact assessment showed important results, mainly due to the ATER work carried out with the most marginalized populations and the inclusion of women and young people. Among the

project's beneficiaries, the Multidimensional Poverty Index (MPI) fell by 23%, while the group of non-beneficiaries saw a drop of only 7%. In addition, 64% of the families benefiting from PPF I showed an increase in the value of their production - higher than that defined in the project's Logical Framework (60%).

These results are even more important considering that at the start of the project, 33% of the Family Agricultural Units (FAU) in the PPF I area did not carry out any conservation practices, and another 33% still used pesticides, in addition to observing various marketing and processing challenges between producers and companies in the region. SDA data from the same period showed that the main barriers to the growth of 128 cooperatives in the project area were inefficient management, a lack of qualified ATER, restrictions on market access, environmental and sanitary inadequacies, as well as difficulties in accessing institutional purchasing policies and innovations.

Finally, it should also be noted that before the pandemic, severe food insecurity was already growing by 6.2% in the state of Ceará (IPECE, 2022). During the pandemic, Ceará was the state with the 8th highest proportion of households living in severe food insecurity (26%), which represents 2.4 million people going hungry, equivalent to 27% of the population, according to data from the II National Survey on Food Insecurity in the Context of the COVID-19 Pandemic in Brazil (II VIGISAN, PENSSAN).

3. THEORETICAL FRAMEWORK

a. Overview of ATER in Brazil - Main Actors

The role of family farming in sustainable rural development is significant, as this type of production values environmental preservation and the efficient use of natural resources. Through agricultural practices such as agroecology and organic farming, family farmers seek to produce food in a sustainable way, minimizing the impact on the environment and reducing dependence on chemical inputs.

In this context, technical assistance plays a fundamental role in rural areas by disseminating knowledge about sustainable agricultural practices, technologies adapted to the local environment and proper management of natural resources. In the absence of these services, farmers tend to face greater difficulties in adopting more efficient techniques, diversifying their production and adapting to changing climatic conditions. In addition, the lack of technical assistance impacts local socio-economic development, also affecting the profitability of agricultural activities, marketing and the ability of farmers to cope with economic crises.

Technical Assistance and Rural Extension (ATER) services play a central role in overcoming poverty and food insecurity in rural areas, especially in the family farming sector. Providing family farmers with ample, continuous and high-quality access to ATER is essential for the sustainable development of this segment. Data from the Census (2017) also shows that family farmers who receive technical assistance and rural extension have a considerably higher average income than those who do not have this service.

In the same line, local development depends to a large extent on farmers' ability to generate income, guarantee food security and contribute to social inclusion and the regional economy. When ATER is deficient, it creates a cycle of underdevelopment that affects not only the farmers, but the entire local community.

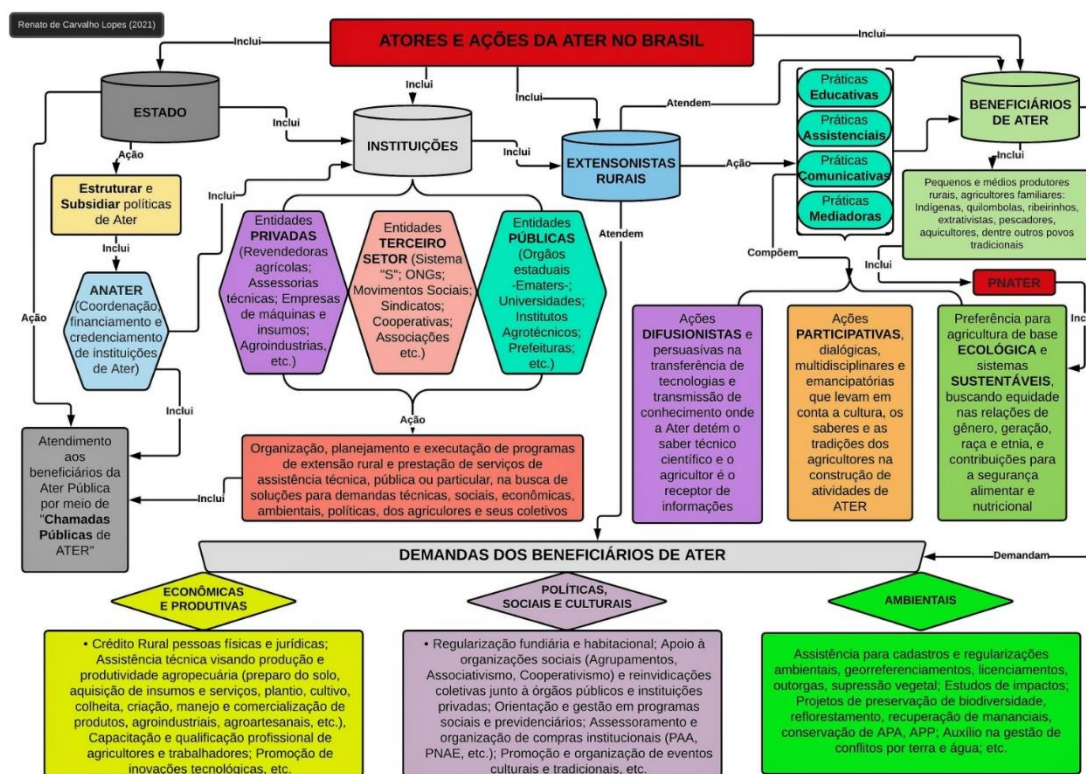
To overcome this shortfall, technical assistance programs need to be adapted to the specific needs of rural communities. These programs should offer qualified technical assistance, training, access to resources and appropriate technologies, thus promoting

sustainable development and contributing to the improvement of living conditions in rural areas.

In this same scenario, recent data from IPEA identifies significant changes in the number of family farms over an eleven-year period (2006 to 2017), which has important implications for the land structure and food production in the country. The Northeast and the South, in particular, suffered significant drops in this regard. The Northeast there was a 18% reduction in the number of family farms, from 2.2 million to 1.8 million, while in the South, there was an even sharper drop, of 21%, from 849,700 to 665,700 farms. On the other hand, there was a slight increase in the number of family establishments the North and Midwest regions.

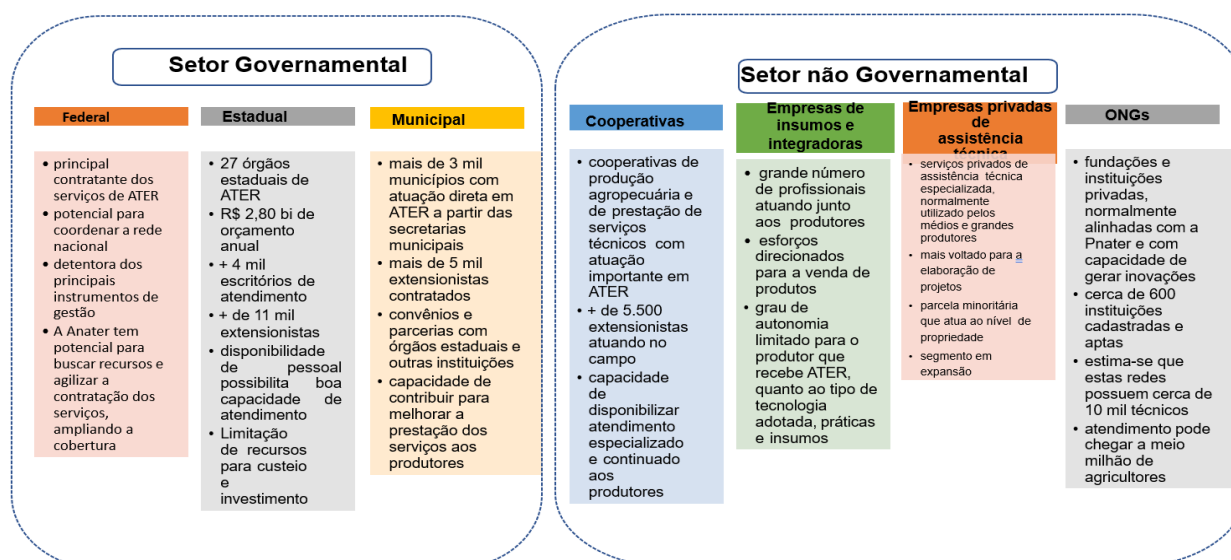
Given this data, it is essential that the sectors and actors in the ATER network in Brazil are attentive to providing adequate support to family farmers, helping them to face the challenges and take advantage of opportunities. Figure 1 below shows a summary of the ATER network in Brazil and the types of actions carried out.

Figure 1. Actors and actions of ATER in Brazil



Currently, ATER in Brazil is promoted by different actors. The federal government coordinates public policies at national level and promotes actions through public calls, via the National Agency for Technical Assistance and Rural Extension (Anter). In addition to the actions carried out at federal level, ATER services are provided at municipal level, by technicians linked to the municipal departments of agriculture, environment and social assistance, as well as by official ATER institutions in the states, linked to the Brazilian Association of State Technical Assistance and Rural Extension Entities (Asbraer). The S system, cooperatives, private technical assistance companies, NGOs, among others, are also important players in the provision of ATER in certain regions, as shown in figure 2.

Figure 2: Sectors and actors in the ATER network in Brazil



Fonte: Asbraer

ATER and Family Farming: Legal framework (main and associated legislation)

Table 2 below lists the main institutional/regulatory regulations that support ATER actions in the country. These regulations are also linked to public policies for Productive Rural Development, Rural Credit, Access to Markets and actions related to Technological Innovation.

Table 2 - Institutional and regulatory norms

Standards	
Law No. 11.326 of 24/07/2006	Establishes the guidelines for the formulation of the National Policy for Family Farming and Rural Family Enterprises.
Law No. 12.188 of 11/01/2010	Establishes the National Policy for Technical Assistance and Rural Extension for Family Farming and Agrarian Reform - PNATER and the National Program for Technical Assistance and Rural Extension in Family Farming and Agrarian Reform - PRONATER, amends Law ^o 8.666, of June 21, 1993, and makes other provisions.
Law No. 12.512 of 14/10/2011	Establishes the Environmental Conservation Support Program and the Rural Productive Activities Promotion Program; amends Laws No. 10.696, of July 2, 2003, No. 10.836, of January 9, 2004, and No. 11.326, of July 24, 2006.
Law No. 12.897 of 18/12/2013	Authorizes the Federal Executive Branch to establish an autonomous social service called the National Agency for Technical Assistance and Rural Extension - ANATER and makes other provisions.
Decree No. 7.215 of 15/06/2010	Regulates Law n ^o 12.188, of January 11, 2010, to provide for the National Program for Technical

	Assistance and Rural Extension in Family Farming and Agrarian Reform - PRONATER.
Decree No. 8.252 of 26/05/2014	Establishes the autonomous social service called the National Agency for Technical Assistance and Rural Extension - ANATER.
Ordinance No. 292 of 03/05/2017 - (ANATER)	Establishes the National Pact for Strengthening Technical Assistance and Rural Extension.
Ordinance No. 287 of 16/08/2022 - (MAPA)	It establishes the Family Farming Hubtech Project, which deals with the development of institutional arrangements - Virtual Hubs to provide relevant agricultural information and content for extension workers, farmers and other related audiences, converging the actions of various Brazilian agricultural institutions.

b. Digital ATER

By offering technical support and access to information, the ATER service contributes directly to the social and economic inclusion of rural communities. As a public policy, ATER plays a multifaceted role in promoting sustainable rural development, acting not only as a facilitator of technical knowledge, but also as a catalyst for economic, social and environmental growth in rural areas.

In the current context, the multiple tools of ICTs, which have become popular since the late 1990s, have emerged as a viable and innovative solution to support these actions. And if digital means of communication between people have permeated practically every space, this has been no different in the ATER scenario.

The growing availability of internet connections, the advancement of digital platforms and access to mobile devices have opened up new possibilities for offering the service virtually and remotely. During the Covid-19 pandemic, the work plan of ATER institutions and their extension workers, which previously took place mainly in person, had to adapt to the remote and virtual modality, making use of digital technologies such as social networks, videoconferences, and conversations via messaging applications (Lopes, 2021), as well as analog media such as radio (Branco, 2021). The use of these technologies has made it possible to transfer knowledge, technical assistance and exchange information more quickly, accessibly and economically.

These experiences have brought more opportunities to extend ATER services, even after the pandemic. Thus, the use and application of digital resources in rural extension service activities to meet the social, economic and environmental demands of farmers, which has been called "digital ATER" in some institutional, political and academic spheres, has enabled farmers to expand their ways of accessing information and technical assistance, and is also a complementary means to the face-to-face ATER service (Lopes; Zuin; Oliveira, 2022).

One of the great prospects of using digital resources and being able to serve rural producers virtually and remotely is their potential to help expand the coverage of services

and interaction with beneficiaries, thus improving the performance of production systems and increasing the productivity and income of families (Junior et al, 2021; Lopes, 2021).

However, despite the advantages of ICTs in ATER, some challenges remain. Connectivity infrastructure is not always available in remote rural areas, limiting farmers' access to these technologies. In addition, issues related to digital literacy involving familiarity with digital devices and technical training to use these tools can also represent significant obstacles.

On the other hand, data from the Regional Center for Studies on the Development of the Information Society (CETIC) showed that, while in 2019, 51% of rural households had internet access, by 2021 this figure had risen to 71%. This was also observed in relation to the use of cell phones and smartphones, which were 85% in 2019 and by 2021 were already in 91% of rural households (CETIC, 2020, 2022).

Thus, understanding and analyzing the current landscape of remote ATER reveals both its transformative advantages and the challenges to be overcome. This approach offers a promising way for expanding access to technical assistance and providing more comprehensive and effective support to farmers, enabling significant progress in sustainable agriculture and improving living conditions in rural communities.

c. ATER CONCEPTS AND PRACTICES

The terms "remote ATER", "digital ATER", "virtual ATER" and "virtual technical assistance (VTA)" are becoming increasingly common to refer to technical assistance and rural extension activities carried out using digital means or ICTs (Lopes; Zuin; Oliveira, 2022). However, one has to wonder to what extent the use of an ICT constitutes digital, virtual and/or remote ATER. According to Lopes, Zuin and Oliveira (2022), digital ATER activities can be carried out in person, where electronic, telephone and computer tools are used to meet farmers' needs, or remotely, where there is no physical presence or face-to-face interaction between producers and technicians, but through virtual means and the Internet.

At the same time, for these authors, virtual ATER refers to the interaction between extension workers and farmers, regardless of their physical location, through communication platforms, applications and online tools. This interaction can involve the sharing of technical/didactic content, such as texts, images, audios and videos, both in real time (synchronous) and recorded and made available later (asynchronous), with the aim of promoting rural extension practices. In short, "virtual ATER" makes it possible for extension workers and farmers to communicate and share knowledge over the Internet.

Remote ATER activities take place exclusively when the actors are physically distant, and can take place digitally, using ICT resources, in online conversations and meetings, or in an analog format (Lopes; Zuin; Oliveira, 2022).

In short, the term digital ATER can be used more broadly because it includes the concepts remote ATER and virtual ATER in its understanding. By combining these ideas, it becomes possible to carry out hybrid ATER, alternating remote and face-to-face moments in rural assistance and extension, using digital and analog resources, in synchronous and/or asynchronous actions (Figure 3 and Annex 2).

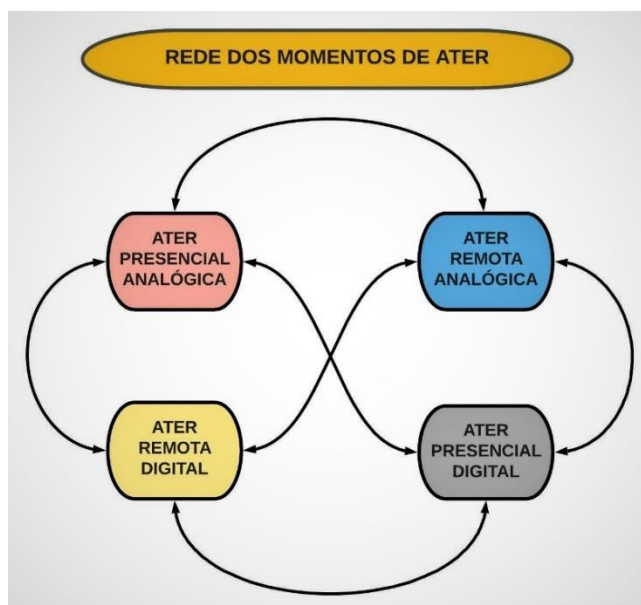


Figure 3: Network of Digital ATER moments

In this sense, it is worth pointing out which ICTs can be used as digital tools applicable to ATER. According to Emater (2020), some digital tools are becoming more relevant, such as: multi-platform instant messaging and audio and video calls; digital tools for virtual marketing; lives; videoconferencing, informational video; and webinars. Table 3 below describes some of the tools, their objectives and the resources needed to implement them.

Table 3 - Tools for Digital ATER.

Tool	Description	Objective	Equipment and resources
WhatsApp or Telegram	Groups made up of technicians, farmers and consumers; virtual assistant; audio and video calls.	Facilitating monitoring and access to resources, through notices, messages and answering questions; bringing farmers and consumers closer together through virtual fairs.	Cell phone and internet access.
Social networks	Posts on Facebook and other social networks.	Debate and reflections on ATER.	Cell phone, computer or tablet and internet access.
Live	Video broadcasts made through social networks such as Youtube.	Establish a direct connection channel with the target audience.	Cell phone, computer or tablet with camera, audio and microphone and internet access.
Video conferencing	Synchronous meetings with dialogues between extension workers and farmers.	Share information, technical materials and working documents.	Cell phone, computer or tablet with camera, audio, microphone and internet access.

Information video	Asynchronous audiovisual content to be accessed at any time.	Sharing information on a topic or content.	Cell phone, computer or tablet with camera, microphone and internet access.
Applications and websites	Sending messages, exchanging experiences and/or distance learning courses.	Maintaining contact with families and providing online training.	Cell phone, computer or tablet and internet access.
Radio and podcast	Short programs made available on blogs, social networks and community and commercial radio stations.	Maintaining communication with families and producing information on various subjects.	Cell phone, computer or tablet and internet access; access to radio programs.

Source: own elaboration, based on Branco (2021), Andrade and Santos (2015), EmATER (2020), Carvalho (2021), Lopes, Zuin and Oliveira (2022), Silva and Zuin (2023).

According to the literature, the content formats used for interaction can also have a significant influence on the performance of the practices adopted by producers. Abate *et al.* (2023), for example, observed that producers who had access to videos achieved better results in cultivation compared to those who were informed by other types of material, such as audio, indicating even higher levels of understanding and absorption of technologies.

Along the same lines, Van Campenhout *et al.* (2021) investigated the effectiveness of audiovisual messages (video) for providing information on agricultural inputs and best practices to families of corn farmers. They also analyzed the additional impact of complementing these videos with an interactive voice response (IVR) service. Finally, they estimated the incremental effect of SMS messages aimed at reminding these farmers to apply key practices at specific times during their production. It was observed that farming families who were shown short videos performed significantly better on a knowledge test and were more likely to apply fertilizers and adopt recommended practices than those who were not. These families also had around 10.5% higher. Another relevant result is that there was little evidence of an incremental effect of the IVR service or SMS reminders.

d. CONTENT FORMATS AND TYPES OF SERVICE

Digital communication is a great ally in disseminating information to rural producers. Within the digital ATER spectrum, it's important to note that many ATER companies now have communication professionals to help them meet the demands of rural producers, using a range of valid content formats to interact with beneficiaries.

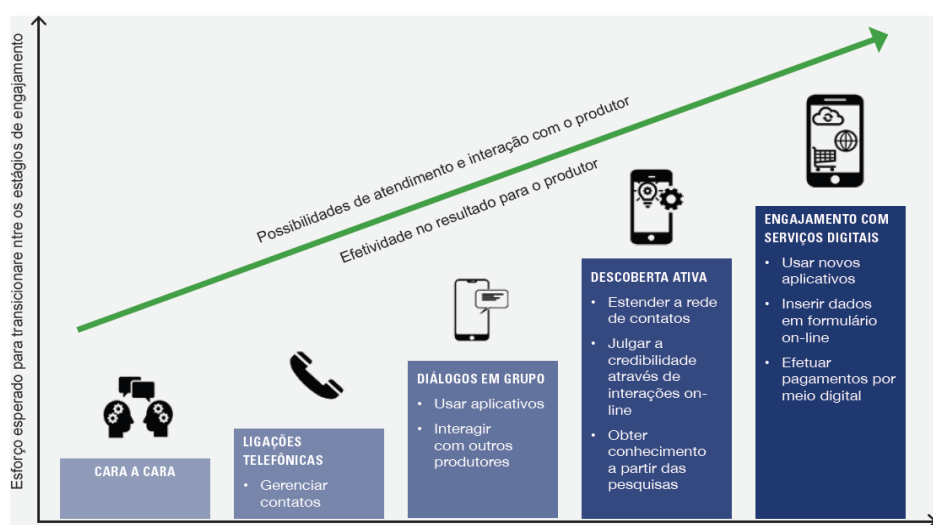
Various initiatives such as the Dom Helder Câmara Project, the Paulo Freire Project - phase I, among others, have explored these remote and hybrid ATER approaches. In these projects, the service is carried out by civil society organizations, public and private ATER companies, which are selected via a public call and contracted by the state and/or Anater. The calls, in general, provide for individual and collective activities, with the adoption of participatory methodologies aimed at implementing sustainable practices. However, in the calls launched so far, there are no robust strategies involving remote ATER actions for working with beneficiaries.

Combining the two forms of ATER can optimize assistance, making it more dynamic and economic. For quality ATER, it is essential to identify how the different profiles of farmers

demand and adapt to the forms of connectivity. It is also necessary to adapt the content, as well as the preparation of extension workers and ATER institutions for remote assistance. It is therefore important that remote ATER tools, as well as face-to-face tools, are constantly improved, making the process increasingly comprehensive (REINER E DOURADO NETO, 2021).

Thus, in addition to the format and type of channel, the socio-economic characteristics of producers seem to be another element that influences the efficiency of ATER actions. In this sense, Reiner and Dourado Neto (2021) reiterate the importance of the use of ICTs by ATER actors adapted to the local realities of language, schooling and degree of access to technology by those assisted. This last aspect requires special attention as it determines the producer's "digital stage" and will determine the effectiveness of remote ATER.

Voutier (2019) found that people living in rural areas tend to follow a similar sequence of digital technology adoption characterized by five stages (Figure 4). At first, interaction takes place solely through personal, face-to-face communication, then through voice calls by telephone, i.e. communication through interaction. This is followed by text messages, audio messages, interaction in WhatsApp groups and even social networks. In the fourth stage, connectivity is more active and forward-looking and no longer just passive as in the other stages. In the final stage, connectivity is adopted and access to digital services via apps or platforms becomes part of the routine of productive activities.



Relationship between the stages of engagement with digital tools, the effort to scale different levels of tool use and the possibilities for ATER service. Source: Adapted from Voutier (2019).

It's important to stress that the time taken to adopt (through the 5 stages) varies for each producer, but is closely related to the effort made, as well as the educational background and assimilation capacity of the person being assisted. In short, the adoption of digital tools is strongly linked to the content and method used, making them essential in the ATER adoption process.

Regarding the design of the ATER service, another relevant aspect is that the efficiency of its adoption varies depending on the type of content and service offered. A greater effect has been observed in cases aimed at solving specific problems in production chains and clearly defined producer profiles (e.g. technical assistance for pest control) and, when aimed at facilitating the process of marketing products, they tend to be more efficient. As

for the purpose of using technologies in rural areas, Bolfe *et al.* (2021) observed that among the purposes of adoption, the main purpose would be to obtain information and plan activities on the property, which represents 62% in areas of 0 to 20 hectares analyzed, 65% from 20 to 100 hectares, and 80% in properties of more than 100 hectares.

Table 4 shows some activities that can be carried out through digital ATER, segmented by topic - and which could be carried out within the scope of this Project. It is important to note that these activities were obtained from consultations with ATER organizations, field technicians and farmers (Branco, T., 2021).

Chart 4 - Main potential activities of Remote ATER.

Themes	Main potential activities (distance)
Increasing farmers' capacities	<ul style="list-style-type: none"> - Distance learning (classes, courses, etc.) - Video lectures - Presentation of social technologies - Podcasts - Special radio and TV programs
Specialized technical assistance	<ul style="list-style-type: none"> - Pest and disease control support - Question and answer service with specialized technicians - Support in resolving pending documents (such as DAP)
Exchange of knowledge between farmers	<ul style="list-style-type: none"> - Virtual Exchanges - Farmers' WhatsApp groups
Increasing young people's involvement in agriculture	<ul style="list-style-type: none"> - Recording and sharing good practices - Expansion of technical knowledge and implementation of innovations in their culture. - Involvement of young people in marketing activities and their consequent participation in the management of the income generated.
Expansion of the audience	<ul style="list-style-type: none"> - Via training and specialized technical support
Sustainability of actions in the field	<ul style="list-style-type: none"> - Ongoing specialized technical support - Further training
Providing virtual access to markets	<ul style="list-style-type: none"> - Virtual Fairs - Delivery for small businesses
Implement participatory monitoring methodologies	<ul style="list-style-type: none"> - Agroecological Logbooks - Recording and sharing good practices

e. DIGITAL ATER PRACTICES AND SUCCESSFUL EXPERIENCES

Among the institutions that promote ATER, we found some experiences using digital tools, in remote and hybrid use. **Emater Goiás**, for example, provides producers with a direct communication channel with the technical team through remote consultation on the Mobi app. The aim of Mobi is to reduce the distance between Emater and rural producers, so that they can clarify their doubts and receive technical assistance. Producers register on Mobi and can talk to the technician about their crops, send photos and videos to show the problems on their property, request a technical visit and even do Rural Credit simulations. In 2023, Emater Goiás provided 57,100 services to 18,800 farmers.

Gente e Gestão, a company based in Juazeiro, Bahia, serves avocado growers in Petrolina, Pernambuco, remotely, at a significantly lower cost than face-to-face services. As part of its methodology, the company operates an online service via WhatsApp, in which

the grower can talk to the technician via video call about their doubts and questions, in relation to some planting process or possible pests in the plantation, for example, as well as guidance on the purchase of inputs. During this service, the technician provides solutions to the farmer's needs. In addition, the company carries out diagnostics and planning of the property online. Thematic workshops and meetings with students and farmers to exchange experiences also take place online. In addition to the fully remote service format, the company also operates in hybrid formats, with face-to-face and remote meetings. The costs and methodologies vary according to each modality, over a 12-month period. The exclusively remote service for low-income family farmers in the semi-arid region of the Northeast, for example, costs the producer R\$331 per month, with follow-up every 15 days via WhatsApp, lasting an average of 20 minutes. The hybrid modality costs twice as much, R\$657, and face-to-face technical visits take place once a month, in addition to a monthly remote service with the same methodologies as the exclusively remote service. The cost of exclusively face-to-face service is R\$842 and includes one visit per month plus the constant presence of technicians for unforeseen problems.

The company **Maneje Bem**, based in Florianópolis, seeks to foster sustainable progress in vulnerable rural areas, promoting their empowerment and accessibility to digital transformation, to promote social, economic and environmental development of communities. The first step in the company's work plan is the diagnosis made using the Sustainability Scale, developed by Maneje Bem, based on collected and external data. After this, the artificial intelligence of the company's system draws up a Development Plan for the community, involving rural extension actions, agricultural technical assistance, targeted training and capacity building. Maneje Bem's work proposals include digital ATER and hybrid ATER. In a digital ATER proposal, for 1,000 producers over two years, the community's investment is R\$246,000, which includes two development plans per year, service per producer via chat (at least every 15 days at the time the content is sent, i.e. 24 per year, totaling 24,000 calls per year) and agronomic on-call available daily, with a response time of 24 hours. As for the hybrid service, the cost is R\$1,422,216.52, including digital ATER services plus a face-to-face technical visit for 100 producers, carrying out a two-hour training course and a thematic workshop per year.

The **Sustainable Rural Project**, run by the Brazilian Institute for Development and Sustainability (IABS), together with the Ministry of Agriculture and Livestock (MAPA), operates in the states of Goiás, Minas Gerais, Mato Grosso and Mato Grosso do Sul, in 101 municipalities, encouraging landowners to reduce their use of inputs with high carbon emissions, by integrating animal and plant management. Its aim is to mitigate greenhouse gas emissions and increase the income of the producers served in the Cerrado biome. This program serves 4,600 farmers and each state has an ATER company that coordinates the services, all of which use ICTs to achieve the technical assistance objectives. The project has implemented face-to-face and remote activities for 16 months. In the remote system, the extension worker answers questions and supplements information via WhatsApp, telephone or remote synchronous meetings. Among the served public, the project's actors have observed different profiles of farmers in terms of their familiarity with ICTs, from small farmers who make an effort to stay connected, to medium-sized producers who have difficulty or don't like using cell phone equipment and messaging apps.

Senar MG is another example of actions that can fit into the hybrid ATER concept. In addition to traditional face-to-face assistance, Senar has a methodology with one visit per month, lasting between two and four hours, depending on the size of the property.

Throughout the attended period, it promotes courses for the producer and offers online teaching material.

Emater Minas Gerais works in different fields of digital and remote ATER to achieve rural development. One example is the television program Minas Rural, which has been on air since 1994, showing content on various topics, such as tips and technical films. In addition, during the Covid-19 pandemic, Emater MG provided smartphones, notebooks and tablets for technicians to continue their work and adopted a virtual bulletin, in the format of a WhatsApp group, disseminating information pertinent to ATER. Thinking about the continuity of digital ATER services, Emater MG plans to implement a chatbot, called Ema, which will work as a virtual channel to answer farmers' questions, leading them to contact the extensionist at the end of the conversation, if necessary.

Within the framework of PDHC II and other projects in Pernambuco, the **NGO Caatinga** stood out as an agent for disseminating relevant information and knowledge to rural communities. In partnership with Angola Comunicação, Caatinga offered an innovative approach to social communication. Through monthly planning meetings, key topics were chosen to be discussed on the radio program, ensuring that the voices of farmers and experts in the field were widely heard. Also in relation to PDHC II, EMATER-PI and IPA stood out by producing content for TV and other remote communication platforms to disseminate information relevant to ATER services at the time of the COVID-19 pandemic.

SASOP worked in the context of the Pró-Semiárido Project (PSA) in Bahia, adopting an approach aimed at producing short audios based on the objectives and goals of the Program, as a Remote ATER strategy. The content was produced by the ATER organizations and disseminated via their WhatsApp lists. By adopting this tactic, SASOP ensured that access to information and community engagement remained robust, even during the period of social distancing.

Considering the success of the cases reported above, the importance of incorporating initiatives aimed at Digital ATER and Hybrid ATER into this new stage of the Paulo Freire project is clear, whether because of their effectiveness, cost savings or even because they help increase the capillarity of ATER actions in the field. In this phase of the PFF, new success stories and references in the field of ATER actions will be identified throughout the implementation of the Project and can be disseminated at regional, national and international level, with the aim of incorporating them into public policies. Figure 5 summarizes the elements presented above, highlighting possibilities for individual and collective interaction, with the adoption of participatory methodologies, as well as opportunities and obstacles.

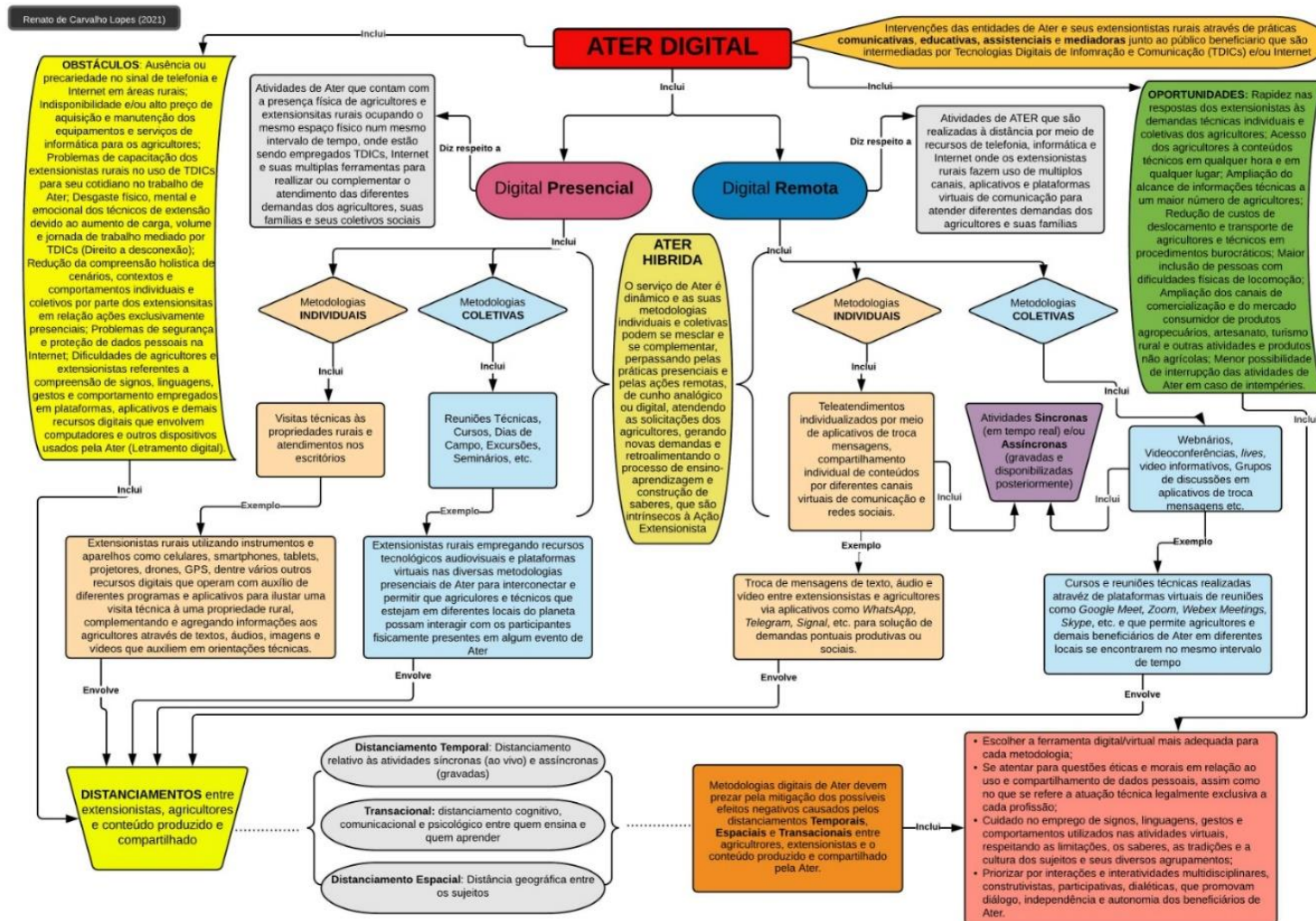


Figure 5 - Summary of Digital ATER

4. PROJECT IMPLEMENTATION

a. Strategy - ATER and specialized technical assistance (STA)

ATER activities will be at the heart of PPF2, cutting across all the components and covering approximately all the beneficiaries. The intervention proposal will aim to strengthen the capacities of farmers and their organizations, as well as introducing innovations, especially digital innovations to support agricultural activities.

Agroecological-based ATER services will be provided for 2 years, to support all activities related to: i) the collective organization of beneficiaries, ii) capacity building, iii) social inclusion (considering the Project's target groups), and iv) technical support related to the preparation, implementation and accountability of Local Rural Development Plans (PDRL) - productive and environmental and v) the implementation and monitoring of productive development as an ATER activity.

The ATER services will consist of individual and collective visits, thematic workshops, courses and exchanges, among other activities. Participatory methodologies will be adopted that promote experiential learning, co-creation and the exchange of knowledge, combining farmers' traditional knowledge with scientific innovation. Preferably, participatory methodologies will be adopted, which will have to meet, among other criteria, the specificities of the Project's target groups (women, young people and PCTs).

As for the ratio of families served per technician, using PPF1¹ as a reference, which had an ATER service considered to be of excellence, we suggest values close to 80 families per technician in face-to-face ATER.

ATER will also provide support for the procurement processes for the goods and services provided for in the PDRLs (to be detailed below), as well as for executing and completing them. Issues related to access to public policies as well as marketing in the various opportunities (institutional and private markets) will be other key elements of the support provided by ATER to the beneficiaries.

To implement this service, EMATERCE combined its expertise with that of civil society organizations. The use of local civil society organizations with expertise and knowledge of the reality allows the Project to benefit from their experience and knowledge, as well as assisting in its implementation. This is especially useful in the areas of agroecology, innovation and the development of gender and youth capacities, along with work in rural communities. These entities will be selected through a competitive process which will consider, among other aspects, their knowledge of the local reality, their experience and the lessons learned in the first phase of the PPF.

In addition to face-to-face ATER activities, field work will be complemented with tools based on ICTs, defined on the basis of the Pilot Project financed by Component 3. To this end, a partnership will be formalized between PPF II and EMATERCE for a Digital ATER Pilot Project.

Similarly, specialized technical assistance (STA) will be offered to organized groups, family farming associations and cooperatives, as well as other actors involved in the main chains worked on by the Project. STA will be contracted by the PMU to support the drafting and implementation of Business Plans (BPs), promoting greater added value to products in order to provide better marketing. The STA will be for two years in the case of large-scale units and one year for small-scale units.

¹ In PPF 1, there were approximately 275 technicians in the field, at the time of greatest coverage, to serve these 600 communities. 22,738 families.

In component 2, the ATER interventions will work to support the implementation of technologies and investments in the areas of water, sanitation and renewable energy - at community or family level; and in component 3, to strengthen the institutional capacities of the Project's various stakeholders. Details of the operationalization of the ATER and STA activities are presented in the components described below.

Under Component 1: **Rural development with environmental sustainability based on agroecology**, ATER and STA aim to support the implementation of investments for development, diversification, adaptation of production capacity and market access with activities to promote and encourage the adoption of agroecological practices, favoring the conservation and preservation of natural resources.

At a territorial level, the Project will work with Local Rural Development Plans (PDRL) with investments in productive development, restoration and environmental sustainability. These PDRL will be elaborate and implement in collaboration with producer families and with the support of ATER. This ATER will be contracted by the PMU and provided by NGOs, with a focus on sustainable productive and organizational development at community and family level. The Project will also organize training events to raise awareness of public policies at state and federal level. These events are designed to promote access to these public policies, thereby facilitating access to credit and trading on institutional markets. In addition to these activities, PPF II will guarantee land ownership through land and environmental regularization (Rural Environmental Registry - CAR).

Cross-cutting themes such as gender, youth, PCT and food security and nutrition will be addressed with the families.

Sub 1.1. Strengthening Family Farming, Overcoming Hunger and Mitigating the Effects of Poverty:

One of the project's activities will be through the development and implementation of PDRLs, with the aim of developing productive and environmental activities with a strong potential to improve/increase production, food security and nutrition. and consequently improve/increase income levels and climate resilience.

The PDRL's financial resources are "non-reimbursable" and include a monetary counterpart from the beneficiaries or non-monetary for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.). The PD will be designed for a group of up to 4 neighboring communities, identified and selected on the basis of pre-established criteria and expressing an interest and willingness to work together.

The PDRL will be the instrument signed between PPF II and the community associations, and will be designed and implemented with the ongoing support of Agroecological ATER. It will have a productive section (**Productive PD**), focused on income-generating activities and improving food security within the family, and an environmental section (**Environmental PD**), whose activities will cover the territory made up of all the communities organized in the plan.

Productive DPs: These will focus on intensifying production in a sustainable way, seeking to introduce and strengthen agroecological practices for diversified production. The constant emphasis on diversification of production systems and activities will be central to both the preparation and implementation of the PDRLs, acknowledging the important role diversification plays in enhancing climate resilience, fostering greater dietary diversity within families, and diversifying sources of income..

Each Productive PD will finance up to three different productive activities, thus allowing the reality of family farming to be addressed, without raising highly complex risks with a very strong degree of diversification. Support will be given to the main agricultural

activities adapted to the caatinga biome and which form the productive basis for securing families' food and sources of income.

Among the main activities are productive backyards (for the production of vegetables, fruit, PANCS, medicinal plants, etc.), SAFs (oriented towards the production of fruit, milk, meat, honey, wood, etc.), sheep, goat, poultry, pig or bee farming, cotton cultivation in agroecological consortia, and cultivation of fruits such as o cashew. Other relevant productive activities could also be part of the Productive PD. Intercropping and a complementarity between plant and animal production will be guiding principles.

With a view to supporting the agroecological transition, support for initiatives based on the use, conservation and multiplication of creole seeds and species is fundamental, therefore will be an axis of action supported by partnerships with Embrapa, institutes, universities and local organizations with experience in these areas.

The Productive DP could also integrate non-agricultural activities, such as handicrafts, rural tourism, local services provision or any other relevant activity, considering that this type of activity shows potential for including women and young people and for creating new jobs and diversifying income sources .

In synergy with the activities of component 2, and to boost the investments made, there will be funding for access to water and renewable energy technologies, as well as funding for light mechanization equipment adapted to the context of family and agroecological production.

Environmental PDs: The aim is to collectively manage and restore the environment at the territorial level, regardless of whether it is linked to the main activities of the productive PDs.

The Environmental DPs lwill have specific resources for collective use to encourage the implementation of territorial environmental plan, such as creole seed houses banks, tree nurseries, reforestation, recovery of springs and degraded areas, recycling or composting plans, etc. These plans will be managed by an environmental management group, and priority will be given to the participation of Young Environmental Agents as key players in introducing environmental education activities and new environmental practices. Synergies and complementarities with the activities and competencies of SEMA (the Environment Secretariat) will be sought in order to implement the activities of the Environmental PDs.

Environmental DPs will be carried out in a participatory manner and will have a strong environmental analysis and land management component. The development and planning of the Environmental PDs will also include a participatory mapping of the territory's natural resources, which will include the identification of degraded areas and areas to be protected, water resources, etc. In addition, a diagnosis of agrobiodiversity (animal and plant) will be carried out, in which the resources and support needs for the implementation of the different production projects will be identified and determined. valuing local species.

The content of the Environmental PD will mainly derive from the Environmental and Social Management Plans (ESMP), which will be elaborated at the same time as the diagnosis of each Environmental PD. The ESMP provides a simplified analysis of environmental and social impacts to promote and encourage the adoption of environmental and agroecological practices for diversified production., as well as to monitor and reduce possible environmental impact risks. These impacts should be analyzed at a territorial or watershed level. The PMU will ensure that technicians receive the necessary training to implement the ESMP. The ESMP will also serve as a diagnostic tool for making specific investments

targeted at environmental issues in the Environmental DPs, complementary to the social and economic activities of the Productive DPs.

This type of PD should use the LEADER approach, which consists of handing over the planning initiative to the local communities of each rural territory who, organized into Local Action Groups, will design and implement a development strategy for that territory, taking advantage of its resources.

Training Farmers to Access Public Policies: The subcomponent will also carry out training activities through workshops, on the modalities and conditions of access to public policies for family farmers, highlighting those aimed at women, young people and PCT (PRONAF, Low Carbon Agriculture, Crop Insurance, institutional markets such as PNAE, PAA, PAA Milk, land access policies and programs for young people and the Planting Time Program). Priority will be given to families not benefiting from other project activities.

Land and Environmental Regularization: In order to increase access to land security as a condition for the development of sustainable natural resource management practices, the project, in partnership with the Cear Institute for Agrarian Development (IDACE), will finance environmental regularization activities (considering that there is a partnership between IDACE and SEMA), and land regularization activities mainly aimed at traditional peoples and communities. In a complementary way, support will be given to modernizing and improving the system to allow for the complete processing of title registration processes at registry offices, to improve the efficiency of issuing property titles.

ATER for the Development of Agroecological and Sustainable Agriculture - Pilot and Remote Activities

As mentioned above, in order to implement ATER activities based on Information and Communication Technologies, a Pilot Project will be established at the start of the project. To this end, a partnership will be formalized between PPF II and EMATERCE for a Digital ATER action to be developed in a number of municipalities, defined at a later date. At the end of the pilot, this experience will be evaluated (methodology used, interaction between technicians and farmers, as well as the results) for subsequent replication, providing any corrective measures and expansion to other municipalities.

It should also be noted that other IFAD activities include studies² on existing tools, methods, potential and innovations in this area, so that the methodologies to be applied in PPF II can be better defined.

The implementation of digital activities will complement the ATER provided by PPF II, as shown in Table 5. These remote ATER activities will focus on the development and adoption of communication and information methodologies and tools to be used directly by family farmers.

Table 5. Focus of face-to-face and remote ATER activities

Activities ³	Character		Modality	
	Individual	Collective	In person	Virtual
1. Coordination meeting with partner organizations		X		X
2. Meeting for mobilize and select beneficiaries		X	X	

² Since 2020, IFAD has been conducting a series of studies with partners on the themes of rural connectivity, remote Ater and digital inclusion.

³ References for activities based on Ater notices prepared by DATER/ANATER

3. Diagnostic visit and characterization of families and plots	X		X	
4. Meeting for socialize the diagnosis and plan actions		X	X	
5. Planning individual actions	X		X	
6. Workshops / training courses		X	X	X
7. Seminars		X	X	
8. Meetings		X	X	
9. Collective activities specific to the technical proposal*		X	X	
10. Exchanges		X	X	X
11. Individual ATER services	X		X	X
12. Collective ATER activities by neighborhood		X	X	
13. Remote ATER activities**		X		X

*talks, systematization workshops, field days

**The activities not carried out must be converted into individual ATER services.

Digital services in the scope of these remote activities to be provided may include: a) Digital technical assistance: education, training and access to production tools, such as plant and insect identification and recommendations for fertilization or weed or pest control; They also include support in accessing: b) Information services: prices, logistics, soil conditions, weather information and early warning systems, etc.c) Financial services: financial management tools and access to credit and insurance; d) Digitization of the supply chain: recording information, planning tools, sharing implements, shared transport of products and inputs, etc. e) Access to markets and e-commerce: selling family farm products, buying inputs, etc.

The possibility of including a direct communication channel with ATER technicians will also be evaluated, so that you can receive personalized assistance, supporting more urgent queries, such as pests and/or diseases present on your property.

These remote activities could guarantee a greater "presence" of the PPF II in the field, extending the technical monitoring of production activities, skills development and exchange of knowledge, the dissemination of social technologies and the incorporation of new tools.

Annex 3, developed from consultations with NGOs and private ATER companies, also provides some indications of how digital activities can be operationalized. Based on these consultations, it was possible to map out their main remote ATER practices, as well as check which ones are being carried out most frequently. The methods used in the remote ATER service were segmented into three moments: before (planning actions), during and after serving the beneficiaries.

The design of this pilot activity will seek to ensure that the digital ATER methodologies adopted mitigate the possible negative effects caused by distance. They should therefore

- Choosing the most suitable digital/virtual tool for each methodology;
- Be aware of ethical and moral issues in relation to the use and sharing of personal data, as well as the technical performance legally exclusive to each profession;

- Be careful when using the signs, languages, gestures and behaviors used in virtual activities, respecting the limitations, knowledge, traditions and culture of the subjects and their various groupings;
- Prioritize multidisciplinary, constructivist, participatory and dialectical interactions and interactions that promote dialogue, independence and autonomy for ATER beneficiaries, as established in PNATER.

Finally, for the implementation of this pilot activity, based on references from other institutions, it is suggested carrying out the work along six thematic axes, detailed below:

1. De-bureaucratization of documents (examples: Declaration of Rural Activity, Digital Rural Producer Card, CONAB Form - Corn sold over the counter; Guide to Organic Waste Compost - fertilizer)
2. Access to knowledge (availability of digital libraries)
3. Infrastructure, promotion and strengthening of rural digital communication (provision of equipment for extension workers; structured communication advisory services to support extension workers, teleservices, etc.)
4. Asynchronous ATER activities (production of videos and technical content that will be available on social networks and other digital platforms - Youtube)
5. Synchronous ATER activities (Lives, courses, webinars. Example: Digital Strawberry Festival in the Federal District)
6. Development of virtual platforms (Apps, chatbot, teaching platforms, etc.)

It is worth mentioning that the experience with remote ATER pilots in the Paulo Freire Project I was successful, especially during the pandemic. From the civilian ATER entities contracted, there are reports of a robust strategy in the use of remote communication tools for dialogue with farmers through the following activities: 1) Creation of groups on WhatsApp divided by communities and municipalities, allowing the exchange of information between farmers - through text messages, audios, images and the video call function 2) Carrying out live broadcasts and lives with the participation of farmers 3) Organization of virtual meetings with the leaders of the associations and the procurement teams, 4) Creating and broadcasting radio content on topics selected by farmers and their families, including podcasts. A report from one of these organizations is available in Annex 4.

Sub 1.2. Strengthening the Marketing and Processing of Family Farming Products:

Its aim is to strengthen processing units by implementing Business Plans (BPs) to add value to family farming products and to improve their marketing. Organized groups, family farming associations and cooperatives as well as other actors involved in the main value chains worked on by the Project will be assisted. The BPs will guarantee investments to adapt/refurbish physical structures, as well as the purchase of machinery for two different types of units: i) medium/large processing units; and ii) small units. The BPs may also include funding for access to renewable energies and internet access.

Although the subcomponent's main focus is on improving and diversifying income from agricultural production, the investments made through the BP should guarantee accessibility and the supply of healthy and safe food. In this sense, the BP for small units could support the establishment of solidarity kitchens (a strategic action of Cear  Sem Fome), which seeks to add value to FF products, prioritizing access for the population in fragile situations.

In both cases, specialized technical assistance (STA) will be contracted by the PMU to prepare and implement the BPs. These services (training, workshops, technical visits,

exchanges, etc.) will be aimed at strengthening management capacities (financial, administrative and social) and improving the production and marketing practices of the organizations. The development of marketing strategies must consider all the opportunities available on institutional markets (PAA, PNAE, Ceará Sem Fome and the Milk Program) and private markets (local markets and mini-markets, municipal fairs, etc.).

STA will also be able to support organizations in certification processes and specific identification of family farming products and agroecological production and will be able to work in partnership with EMATERCE in these aspects.

The activities of this subcomponent will be implemented with the support of the Coordination of Support for Livestock Production Chains and the SDA's Coordination of Territorial Development, Cooperativism, Commercialization and Solidarity Economy. Considering that the São José IV Project works with the processing units, synergies and complementarity will be sought whenever possible.

Subcomponent 1.3: Gender, Youth, Food Security and Nutrition

Activities will be carried out on three of the project's themes, strengthening the mainstreaming of gender, youth and nutrition issues in all the components, and supporting part of the families' in-person ATER needs. Among the women's empowerment activities are gender training, the implementation and monitoring of the agroecological notebook methodology and cirandas activities for children, in order to allow greater participation by women.

Activities aimed at young people include festivals and caravans, the Young Communicators program, leadership training, among others. Nutrition activities have focused on exchanges and training. All of these practices will be integrated into the drafting and implementation of the LRDPs, thus seeking effective implementation and results on food and nutritional sovereignty. The training will also include modules on maternal and child health and reproductive health.

Component 2: Access to water, sanitation and social technologies

This component aims to make investments in the areas of water for domestic use and agricultural production, household sewage and renewable energy, and will support awareness-raising on knowledge to improve good practices in the use of water for domestic, hygiene and sanitation purposes by the population.

Small infrastructures will be built to access and store water for agricultural production. Whether for community or family use, the investments will guarantee access to water of better regularity and quality, as well as reducing the contamination of soil and water with waste produced in family units. With the support of ATER teams, practices and technologies for the rational use of water will be systematically introduced with a view to adapting to climate change.

The projects will have to be developed under the guidance of the SDA, which will also be responsible for the design and construction work - which can be done in cooperation with public and/or private partners. The management of the infrastructure installed and the actions implemented will be the responsibility of the community associations, federations of associations and cooperatives.

In **S2.1 Community Rural Basic Sanitation**, the aim is to plan and implement basic rural sanitation at community level, to improve the environment and the quality of life of a group of families, considering collective solutions for access to water, sanitary sewage and gray water reuse. In addition to providing adequate disposal and processes that enable

the collection and recycling of a portion of the solid waste generated by these communities. Investments will be made to guarantee access to drinking water in sufficient quantities for human consumption. As well as setting up new water supply systems, improvements, extensions and rehabilitation of existing water supply systems will be carried out.

As this is a pilot-scale plan, it will be necessary for the SDA to monitor it for at least a year, analyzing the treated grey water, the soil and the plant species produced from the grey water treatment, in accordance with current national legislation. After the pilot monitoring period, the greywater disposal systems will have to be operated and maintained by the community associations that will benefit from the plan.

In an effort to reduce the improper disposal of waste produced in homes, water sources and the environment in general, ATER teams and other project agents will implement and/or support activities with associations and cooperatives, including the development of handicraft groups, led mainly by women and young people.

In **S 2.2. Social Technology for Access to Water and Support for Production**, social technologies will be implemented to capture rainwater for human consumption (cisterns for human consumption) and for production (cisterns for agricultural production), with a focus on individual, family solutions. Production cisterns, family water reuse systems for production and trench dams (underground dams) will be implemented. In addition to these activities, infrastructures will also be implemented for sanitation solutions with a complete household sanitation module (toilet plus treatment), always with a focus on the sustainable use of resources, the preservation of natural resources and the Caatinga Biome, and the generation of energy through biodigesters and eco-efficient stoves.

During the implementation of the actions, the families, with the support of the ATER teams and other project actors, will receive technical support and take part in various training events so that they are able to incorporate the new technologies for access to water and support for production into their routine.

Component 3: Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

Centered on Knowledge Management, it aims to strengthen project partners institutionally and expand innovations. In addition, it seeks to improve technical capacities, both at the state team level and from a territorial perspective, ranging from farming families to their organizations (associations or cooperatives) and other institutions in Ceará.

In **S 3.1. Capacity building for family farmers and rural extension teams (Technical Assistance, TA)** This will seek to promote capacity building in areas related to climate change resilient agriculture through strategic studies and exchanges, covering topics such as desertification, nutrition, biodiversity, and food security. In addition, it will seek to provide a more comprehensive perspective on key issues for the project and, consequently, influence possible public policies.

INOVA CLIMA's activities seek to improve and update the knowledge and skills of beneficiaries and the teams of professionals working on the Project, especially within the scope of component 1. It will work with contracted Technical Assistance (TA) entities, EMATERCE and other Project stakeholders. In this sense, it will also seek to value local knowledge, especially the PCTs, to act as multipliers and agents of local empowerment.

To this end, courses, training, capacity building and exchanges will be set up, which will include face-to-face and virtual activities and will take place throughout the Project's

implementation. In addition, technical assistance services will be provided to producers and the exchange of experiences and good practices will be facilitated. Special attention will be paid to the participation and empowerment of rural women. Specifically, the following activities will be carried out: 1) A course for farmers offered by AT; 2) Training courses to strengthen the technical skills of the ATER and CTE teams; and 3) Activities to exchange experiences between farmers in the state.

S3.3 Promoting research on technology and implementing pilot projects will focus on promoting technological research and implementing pilot projects that are economically accessible and viable, with the potential to become rural businesses. These projects will seek to use renewable energies, reduce the use of firewood and biomass, and improve the quality of water for human consumption, among other actions.

Reference centers will be established to serve as sites for the dissemination and scalability of the knowledge to be disseminated, in collaboration and networking with partners such as universities and research centers. The methodology of these interventions will be based on close collaboration with family farming organizations throughout the process, from the identification to the implementation of the initiatives.

b. Implementation Partners

The project will seek to consolidate the main partnerships established in the government sphere by the Paulo Freire phase i Project, with other public and private institutions and to integrate the actions of the various SDA system coordinators. Specifically in relation to the Project's ATER activities, the main institutions that will be working are EMATERCE, COAGUA and IDACE, as well as civil society organizations. These institutions will play a leading role in the methodological design, technical support and monitoring of the ATER work in the field. Considering the magnitude of the project, civil society organizations will be contracted to design and implement the various types of actions with the beneficiaries.

The Technical Assistance and Rural Extension Company of Ceará (EMATERCE): The institution is a strategic partner, with capillarity throughout the Project's target region. Its participation will mainly involve exchanging experiences with farmers in the field.

EMATERCE's regional offices will house the PPF II focal points in the territories, providing a suitable place to carry out the work. A partnership will also be formalized between the SDA/UGP PPF II and EMATERCE for a Digital ATER pilot action.

For these activities, EMATERCE will make part of its IT infrastructure available, including its +ATERCE applications, and another connected to the State Agriculture System (SEA) - with the following functionalities: Marketplace, Traceability, Artificial Intelligence, and Distance Learning (EaD). +ATERCE was designed to optimize data collection and farmer's registration, as well as having other features such as production indicators and ATER services. These remote ATER actions will focus on the development and adoption of communication and information methodologies and tools to be used directly by family farmers.

EMATERCE has been making great efforts to expand and qualify its Technical Assistance and Rural Extension services to farmers by introducing digital technologies. In this regard, the SDA, with the participation of EMATERCE, has created a system for registering rural producers and their enterprises, to legitimate the product's origin supplied to the PNAE executing entities in the state.

Water Supply and Sewage Coordination Office (COAGUA): Unit of the Government Secretariat responsible for managing, planning and supervising public policies related to water supply and basic sanitation. In this project, the institution will support ATER services related to these issues. It will also participate in institutional capacity-building activities with its staff, managers and technicians.

Instituto do Desenvolvimento Agrário do Ceará (IDACE): Will be responsible for developing activities related to the organization of the land structure, with an emphasis on rural settlement and resettlement. Within the scope of the Project, it will contribute to land regularization actions and the preparation of the CAR.

Instituto de Pesquisa e Estratégia Econômica do Ceará (IPECE): This institution is responsible for generating socio-economic and geographical studies, research and information that enable programs to be evaluated and strategies and public policies for local development to be designed. Its contribution to the project will be mainly in organizing information on the areas and their populations to be served by ATER actions.

Civil Society Organizations (ATER): Organizations with experience in rural territorial development will carry out ATER activities, in line with the National Technical Assistance Policy, and with other actions proposed by the project under the supervision of the PMU and EMATERCE.

State Secretariat for the Environment (SEMA): In order to implement the actions of the Environmental PD, synergies and complementarities will be sought with the activities and competencies of SEMA. In addition, the existing partnership between IDACE and SEMA will also be considered in the environmental regularization actions within the scope of the project.

Brazilian Agricultural Research Corporation (Embrapa): The institution has a lot of accumulated knowledge and experience, with its research agenda focused on technological innovations. It has a number of projects with a direct link to the PPF II themes, structured in different portfolios, such as: a) Food: food security, nutrition and health; b) Coexistence with Drought in the Semi-Arid; c) Forestry; d) Social Innovation in Agriculture; e) Crop, Livestock and Forest Integration; f) Climate Change; g) Environmental Services; and h) Ecologically-Based Production Systems.

In the Project, the company will support with training and the development and availability of technologies for sustainable family farming and innovative agricultural practices. It could also be an important partner for Digital ATER activities, and could also provide assistance for: 1) farmers training in the face-to-face modality and in Distance Learning (EaD); 2) operationalizing remote ATER activities, through the hubs and other initiatives - producing videos, audios and other media to disseminate good practices and technological innovation.

Finally, it should be noted that, throughout the execution of the activities, in addition to the institutions mentioned above, partnerships will be sought with universities and other entities with prominence in the region, with INSA and civil society organizations. Synergies with other projects in the state will also be sought, such as the São José Project (PSJ), which operates in the same region, but involves other targeting strategies and different activities.

5. ANNEXES.

Annex 1. Estimated costs

Remote ATER activities can replace some of the costs of exclusively face-to-face ATER, such as travel costs. However, the literature mentions that there is an entry cost, such as internet access, for farmers. This section presents the main elements in carrying out remote ATER for 1,000 families and their costs.

According to the average number of producers that a technician can serve, 100 families were stipulated for each technician, meaning a team of 10 technicians and 1 supervisor. Figure 1 below shows estimates of the costs of Remote ATER for 1,000 families, 10 technicians and 1 supervisor over 2 years.

Remote ATER - 1000 producers, 10 technicians, 1 coordinator - 2 years

Activities ¹	Details	Unit	Quantity	Unit value (R\$)	Total (R\$)
Courses, Workshops and Exchanges	zoom meetings	signature	annual	R\$ 680,99	R\$ 1,361.98
Subtotal					R\$ 1.361,98

Producer investment					
Item	Details	Unit	Quantity	Unit value (R\$)	Total (R\$)
Internet mobile data	monthly plan	family/month	1000	R\$ 100,00	R\$ 2.400.000
Internet at headquarters	wi-fi in the association	month	24	R\$ 200,00	R\$ 172.800
Subtotal					R\$ 2.515.200

Other Investments					
Item	Details	Unit	Quantity	Unit value (R\$)	Total (R\$)
Technician's salary	gross monthly salary	10	26	R\$ 7.000	R\$ 1.820.000
Coordinator's salary	gross monthly salary	1	26	R\$ 10.500	R\$ 273.000
Subtotal					R\$ 2.093.000

TOTAL					R\$ 4.612.285,94
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¹ The content to be used in the workshops will be taken from existing virtual libraries.

Activities such as courses, workshops and exchanges can be offered synchronously, using the Zoom Meeting online meeting platform, with an annual subscription of R\$ 680, or

asynchronously, with ready-made content sent, certified and available in virtual libraries. These materials, for example, can be consulted by the producer whenever they wish.

In view of the low level of internet access for many farmers, the cost of a monthly internet package for all the families over two years was stipulated. In addition, the cost of setting up a Wi-Fi network at the association's headquarters for 24 months was also calculated.

It should be noted that the producer's investments in equipment, such as smartphones or tablets, should be borne by the producer, since donating these items does not produce positive returns and has not worked in practice, as will be seen in the experiences reported in section 3.4. It is more relevant to invest in network infrastructure, such as wi-fi, in the association, collectively, so that farmers can meet and hold meetings, exchanging experiences and knowledge.

Finally, the gross salaries of the technician and supervisor are in line with the average for the Southeast region of Brazil. In this sense, they are responsible for the costs of their equipment and internet access. It should be noted that in other locations salaries are lower, however, they do not include equipment and internet costs.

It can be seen that remote ATER can increase the number of families served, without affecting costs. However, it's worth noting that quality must always be considered ahead of numbers, so that the objectives of ATER are met.

Experience with Equipment Supply and Most Used Tool

Among the information collected, WhatsApp has been the most widely used method for remote digital ATER. Through WhatsApp, technicians can answer questions, make diagnoses and provide guidance to producers. It should be noted that, from the experiences collected, the services provided through this medium are short, lasting up to 10 minutes. In addition, it is easier for producers and technicians to access and use than other tools.

On the other hand, when it came to donating equipment to producers, such as smartphones, tablets and notebooks, the institutions' experiences were negative, since the equipment was being used for other purposes and not for interaction between the technician and the farmer, and was even being lent to other family members to use for games and other entertainment. In addition, a lot of the equipment was broken by users.

Annex 2. Conceptual approaches to the stages of the ATER service

Source: Adapted from Lopes (2016), EmATER-MG (2021), Lopes, Zuin and Oliveira (2022)

MOMENTOS PRESENCIAIS E ANALÓGICOS	Orientações orais e/ou textuais e ilustrativas por meio de documentos e materiais com informações técnicas em folhas, faixas, cartazes, cartolinas, <i>flip-chart</i> , entre outros. Geralmente, essas técnicas são empregadas tanto em atendimentos às demandas individuais dos agricultores, nos escritórios de Ater quanto nas propriedades e comunidades rurais, como ainda, em metodologias coletivas de Ater como reuniões técnicas, cursos, dias de campo, intercâmbios, dentre outros tipos de encontros.
MOMENTOS REMOTOS E ANALÓGICOS	Disponibilização em locais previamente definidos ou o envio por meio de correspondência para o agricultor de diferentes documentos e materiais didáticos que contenham elementos textuais e ilustrativos. Afim de atender as demandas individuais dos agricultores, ou de forma coletiva via associações ou cooperativas.
MOMENTOS REMOTOS E DIGITAIS	A interação ocorre por meio do uso da Internet, equipamentos de telefonia, informática (computadores, <i>smartphones</i> , <i>tablets</i> etc.), aplicativos e plataformas de comunicação (<i>WhatsApp</i> , <i>Telegram</i> , <i>Google Meet</i> , <i>Zoom</i> , etc). Para realizar a entre os interlocutores uma troca de mensagens por imagens, textos, áudios e/ou vídeos em teleatendimentos individuais, ou ainda, para compor as metodologias coletivas remotas de Ater como cursos, videoconferências, webnários, <i>lives</i> , dentre outras.
MOMENTOS PRESENCIAIS E DIGITAIS	Para essa forma de encontro é utilizado a Internet, aplicativos, plataformas de comunicação virtual, equipamentos de telefonia e informática, bem como os demais recursos digitais (GPS, <i>drone</i> , robôs, sensores etc.), para ilustrar e compor as atividades de atendimentos individuais nas propriedades rurais e nos escritórios centrais e regionais de Ater. Também pode ser empregado em metodologias coletivas como cursos, dias de campo, reuniões técnicas, intercâmbios, dentre outras.

Annex 3. Methods used in the remote ATER service

Private institutions participating in the survey that currently offer the hybrid/remote ATER service in relation to "how" the service is offered. This table shows only the options with the highest frequency among respondents.

Stages	Questions	Higher frequency option	Range* %
Before the service (action planning)	Responsible	The same person carries out remote and face-to-face service	70 a 80%
	Legal, ethical, moral and confidentiality issues	Online training	50%
		Face-to-face training	20 a 30%
	Digital material made by the institution	Images (Photos and/or cards)	100%
		Texts and/or information leaflets	75%
During the service	Most effective day of the week and shift	Tuesday afternoon shift	10 a 20%
	Frequency	Monthly	30 a 40%
		Weekly	20 a 30%
	Activity carried out	Individual teleservice through virtual videoconferencing platforms	50 %
		Individual calls via apps	40 a 50%
	Equipment used	Mobile/Smartphone	50%
	Instrument used	WhatsApp	90 a 100%
Video Conference		50%	
After the service	Checking recommended practice	Face-to-face verification visit	40 a 50%
		Direct report from the producer	20 a 30%
		Photographic record sent by the producer	20 a 30%
	Customer feedback	Interviews	50 a 60%
		Research	40 a 50%
Average number of families served/month	More than 30 families	60 a 70%	

Source: prepared by the researchers based on survey data. Frequency in which the answer appeared in the questionnaire.

Annex 4. Report on Digital ATER – activities being carried out - field technician from CETRA - CENTER FOR LABOR STUDIES AND WORKER AND WORKER ASSISTANCE

"Our first experience was with the Paulo Freire/Saberes do Semiárido Project, which we began to explore possibilities for conducting some ATER activities remotely. It is challenging to carry out 100% of the activities remotely, since many families face access difficulties, making individual ATER actions and training on social technologies or in the productive area complex.

As we already had a previously articulated network (Sobral Agroecological and Solidarity Farmers' Network), made up of well-known families (who already took part in meetings, were part of organizations, unions and associations), we held virtual meetings, modular training sessions on marketing, social technologies, implementing the Agroecological Kiosk, training sessions with young people, building the Agroecological Kiosk Business Plan, presenting the project to partners, among other activities. One positive aspect was the possibility of weekly meetings with the AKSAAM team, which contributed significantly to project planning.

In this sense, I think it's feasible to carry out ATER in a hybrid way, alternating face-to-face and virtual moments, providing more fruitful results. It is possible to conduct ATER virtually when we already have a social base, otherwise mobilization is necessary, since face-to-face interaction is crucial to building trust.

Remote activities were used for more collective actions.

Individual actions were also carried out, but on a smaller scale. In order to fill this gap, we have created nuclei by community and groups of communities. We hold meetings to solve common problems and discuss experiences that can stimulate the group. When cases or situations arise that require a more individualized approach, we opt for video calls, resorting to face-to-face visits only as a last resort, if it is not possible to do so virtually."

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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: G Stakeholder Engagement Plan

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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ANNEX G: STAKEHOLDER ENGAGEMENT PLAN

Capacity Building Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty (Paulo Freire Project - Phase II)

1. Introduction

This Stakeholder Engagement Plan details the consultations held with stakeholders during the Project design phase and establishes a process to ensure stakeholder engagement during the implementation of the Capacity Development Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty - Paulo Freire II Project (PPF II).

2. Summary of previous stakeholder engagement activities

The Ceará State Secretariat for Agrarian Development (SDA) will be the project's executing agency. The Project Management Unit (PMU) will be housed in a specific location at the SDA, in Fortaleza, and will take charge of the Project's implementation, management and monitoring activities. It will be responsible for ensuring stakeholder engagement at all stages of the project.

During the design missions for the PCN (Project Concept Note) and the PDR (Project Design Report), consultations were held with the State Governor, the Finance Secretariat (SEFAZ), the Planning and Management Secretariat (SEPLAG), the Agrarian Development Secretariat (SDA), the Environment and Climate Change Secretariat (SEMA), the Ceará State Technical Assistance and Rural Extension Company (EMATERCE), the Ceará Agrarian Development Institute (IDACE), the Water Supply and Sewerage Coordination Office (COAGUA), the Ceará State Economic Research Institute (IPECE), the São José Phase IV Project (PSJ IV), the State Comptroller's Office (CGE), the State Attorney General's Office (PGE), the Ceará School of Public Health (ESP), the Ivens Dias Branco School of Social Gastronomy (EGSIDB), the Brazil-Africa Institute (IBRAF), the Ceará Water and Sewage Company (CAGECE) and Itapipoca City Hall. In addition, field visits were made to potential beneficiaries in 10 municipalities in the PPF II coverage area.

3. Identifying stakeholders

The Project categorizes "stakeholders" into two subgroups: (i) stakeholders directly or indirectly affected by the Project; and (ii) others (not affected by the Project) who can be classified as "broader stakeholders". In the first category, although it is important to define the roles of each social actor, the distinction between "directly affected stakeholders" and "indirectly affected stakeholders" will be delineated at the beginning of the Project implementation process. A methodology will be built together with the stakeholders who have been identified as possible partners to understand their level of affinity with the Project and to build a consensus on their degree of participation in the planned actions.

As directly affected stakeholders, the following organizations should be active participants: the sub-secretariats, coordinators and autarchies of the Secretariat

for Agrarian Development (SDA): EMATERCE¹, IDACE², COAGUA³, among others; the Finance Secretariat (SEFAZ), the Planning and Management Secretariat (SEPLAG), the Environment and Climate Change Secretariat (SEMA)⁴, the Ceará State Economic Research Institute (IPECE)⁵ and civil society organizations⁶, particularly those representing the target groups (family farmers, women, young people, traditional peoples and communities, land reform settlers and the LGBTQIAPN+ community).

The "broader stakeholders" category includes agents not directly involved but who can contribute to research on core activities and to the development of project activities. These include: the School of Social Gastronomy (EGS)⁷, the School of Public Health (ESP)⁸, the São José IV^{9, 10, 11, 12, 13}.

The engagement of other civil society organizations, such as NGOs, or implementation partners will also be sought to support actions to mobilize and engage other strategic partners, technological innovation, and territorial intelligence.

4. Approaches for socially vulnerable groups

PPF II's target groups are family farmers living in poverty and extreme poverty, rural youth, rural women, traditional peoples and communities (PCTs) and the LGBTQIAPN+ community. Measures will be taken during implementation to

¹ Ceará's Technical Assistance and Rural Extension Company (EMATERCE) will take part in the project's actions, which involve training family farmers.

² The Agrarian Development Institute of Ceará (IDACE), a special authority linked to the SDA, will be responsible for developing activities related to land regularization issues and the preparation of the Rural Environmental Registry (CAR).

³ The Coordination Office for Water Supply and Rural Sanitation (COÁGUA) will monitor the activities of component 2 and contribute to studies related to rural sanitation.

⁴ The Ceará State Department of the Environment (SEMA) will contribute to the project by issuing Environmental Licenses for the proposed activities and will support the Rural Environmental Registry (CAR).

⁵ The Institute for Research and Economic Strategy of Ceará (IPECE) is responsible for preparing studies, surveys and socio-economic and geographical studies that support the development of public policies in the state. In PPF2, IPECE will support the preparation of relevant studies on the area of operation and its populations, as well as supporting the Impact Assessment study.

⁶ Civil society organizations will be important partners in the implementation of PPF II activities, especially by carrying out ATER activities.

⁷ The School of Social Gastronomy (EGS) is a training and research center focusing on gastronomy and food culture that will implement some of the nutrition activities of PPF II. The school will provide various theoretical and practical training modules on food culture and healthy eating habits, food processing and cooking. EGS is part of the Secretariat of Culture, administered by the Dragão do Mar Institute (IDM) and located in Fortaleza.

⁸ Ceará's School of Public Health (ESP) is a teaching and research center that will contribute to the project by offering health and nutrition training to vulnerable families.

⁹ As part of the SDA, the São José IV project will be an important player, working on key issues addressed by PPF II. Synergies and complementarity will be sought.

¹⁰ IBRAF is a relevant potential partner for the project's actions involving South-South and Triangular Cooperation (SSTC).

¹¹ Entities linked to CEASA will be part of the collective management of the project, participating in the Strategic Management Committee (CGE).

¹² These partnerships will be especially important for innovation activities and those involving Productive and Environmental Development Plans (PD).

¹³ Municipal governments will be mobilized to participate in the project's actions, contributing to the Territorial Plans and actions within their remit, as well as strengthening the governance necessary for the sustainability of the project's actions.

incorporate the perspective of these groups based on their local reality, needs and specific demands. The project envisages four ways of doing this.

Firstly, special attention will be paid to ensuring that the specific needs and priorities of women, young people, PCTs and the LGBTQIAPN+ community are identified and considered during various important moments of the Project, such as carrying out the baseline survey. The main tools for doing this include, among others, focus groups, key informant interviews and participatory planning.

With traditional peoples and communities, the first step to be taken, when applicable¹⁴, should be to obtain Free, Prior and Informed Consent (FPIC), in accordance with the FPIC Plan (Annex H of the PDR), which includes guidelines for this purpose. In cases where this is not applicable, the conditions must be created for establishing a clear dialogue that respects the characteristics of the communities and ensures engagement with the project with this target group, formalized by commitment agreements between the communities and the SDA. The second step should take place when the project's baseline is constructed. At this point, following the agreements made with the communities, a diagnosis should be carried out that points out relevant socio-cultural aspects for each target group that could influence the effectiveness of the planned activities. This information should be considered when training the project team and its technical assistance team to develop responsive and adapted intervention methodologies. Secondly, the target groups will be involved in monitoring progress in the delivery of interventions supported by the Project and their immediate results. They will also influence decisions to improve the service's quality, timeliness, and reach. The tools for doing this include, among others, outcome surveys and feedback and/or thematic micro-surveys.

Thirdly, measures will be taken to ensure that target groups can easily express their grievances and report irregularities in relation to the interventions supported by the Project. This will be made possible through PPF II's *Grievance Redress Mechanism* (GRM), which must be made known to stakeholders on an ongoing basis. Further details on the GRM are available in Annex D of the PDR, which is specifically dedicated to this topic.

Fourthly, the target groups will be involved in evaluating the results, including their satisfaction with the interventions supported by the Project, and in generating lessons for scaling up and sustainability. The tools for doing this include, among others, surveys of basic results indicators.

Opportunities to engage target groups during the life of the project.

Project design / initial implementation phase	Delivery of project interventions		Key evaluation moments (completion of the project)
Identifying needs and priorities	Monitoring progress	Complaints handling	Evaluation of results

5. Stakeholder engagement program

5.1 Social control mechanisms during project implementation

Implementing the project will require a high level of coordination between the SDA and different partners, linked to the needs and challenges of the target

¹⁴ The purpose of the FPIC provision is to ensure that government projects, especially infrastructure projects, are not implemented without prior discussion with the peoples who will suffer the negative impacts of these projects. The project will not have any negative impacts on the communities, however, considering the primacy of the right, an FPIC plan was drawn up.

groups. The PMU will be formally created in the Secretariat of Agrarian Development - SDA of the state of Ceará, with a team dedicated exclusively to PPF II and clear attributions¹⁵.

From the point of view of collective management, the project will have a Strategic Management Committee (CGE) with the aim of providing technical support and supporting the PMU in the main strategic decisions. This committee will be made up of representatives from the SDA's coordinating departments, the coordination of the São José Project's PMU and related entities such as EMATERCE, IDACE and CEASA.

To inform its deliberations and increase capillarity and articulation with territorial, state, regional and national public policies, PPF II will participate in two other governance spaces:

At a territorial level, the *Micro-regional Forums for Life in the Semi-Arid* will act as Regional Committees, monitoring the actions and providing the necessary support for the project to run smoothly, always seeking complementarities and synergies with other initiatives. These forums already exist in all Ceará's territories and are made up of civil society organizations (NGOs, associations, cooperatives, unions, churches) and grassroots organizations that already carry out actions related to the objectives and target groups of PPF II;

At the municipal level, the *Municipal Committees for Coexistence with the Semiarid*, which already function in the municipalities of the Ceará's Semiarid and support the implementation of programs and policies for coexistence with the semi-arid region, will be used as local committees to monitor the implementation of the project, carry out social control and support the mobilization of the communities and families that will be included in the project. These committees are made up of social organizations, municipal agriculture departments, rural workers' unions, EMATERCE, municipal federations of associations, grassroots organizations, and others.

5.2 Complaints and grievance mechanisms

In accordance with IFAD's environmental and social policies, as well as the Access to Information Law (LAI) and the Law for the Protection and Defense of Public Service Users, a public and accessible complaints and redress mechanism (GRM) will be made available to the project's target groups for individuals, authorities or community representatives affected by the implementation of PPF II. This mechanism must be easily accessible to the population and have a rapid resolution, ensuring that complaints submitted are quickly analyzed and that situations are mutually agreed upon to the satisfaction of the parties involved.

The project will take advantage of the SDA's consolidated system for receiving and handling complaints and denunciations, adopting the existing Ombudsman channel. The Project will promote an ongoing program to disseminate integrity policies, as well as training and guidance on the use of whistleblowing tools to the communities and beneficiaries of PPF II. All people potentially affected by the Project's activities will be informed and given clear instructions on what procedures should be followed for registering reports and complaints. This information will be made available in plain language. Grievance redress will be part of the review questions of IFAD's annual supervision missions.

¹⁵ The PMU's key (minimum) team, exclusively dedicated to the project, will include the following members: i) General Project Coordinator, ii) Component 1, 2 and 3 Managers; iii) Procurement and Contracts Specialist, iv) Financial Management Specialist, v) M&E Specialist, vi) Gender and PCTs Specialist; vii) Youth Specialist; viii) Nutrition Specialist; ix) Knowledge Management, Communication and South-South and Triangular Cooperation Specialist; and x) Safeguards Specialist.

Complaints may also be submitted through IFAD's Complaints Procedure, which allows individuals and communities to contact IFAD directly and make a complaint if they believe they are or may be adversely affected by an IFAD-funded project/program that does not comply with IFAD's Social and Environmental Policies and their mandatory aspects.

In line with IFAD's Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (2020), as well as federal legislation and regulations related to the topic, including the typification in the Penal Code for sexual harassment, IFAD and the SDA will have zero tolerance. PPF II will ensure that adequate safeguards are in place for a safe and harassment-free work environment, including sexual harassment and freedom from sexual exploitation and abuse in its activities and operations¹⁶. The Project shall record reported cases and communicate to the competent authorities in the country, as provided for in national legislation, as well as to IFAD for them to take appropriate action based on the evidence.

More details on the GRM can be found in Annex D of the PDR, dedicated exclusively to this subject.

5.3 Action Plan: planned activities and budget

The activities in this Action Plan that directly involve stakeholders include:

- Consultations with traditional peoples and communities on strategies and actions to guarantee prior, free, and informed consent, the establishment of working agreements and the collection of suggestions and proposals;
- Analysis with stakeholders considered to be in a situation of vulnerability (women, young people and traditional peoples and communities) to understand their specific circumstances and concerns related to socio-environmental practices and traditions;
- Periodic meetings with the Project's management bodies and its participatory governance bodies: Strategic Management Committee (CGE), Regional Committees (Micro-Regional Forums for Life in the Semiarid) and Municipal Committees for Coexistence with the Seminar;
- Periodic meetings with stakeholders to evaluate the project's actions, openly communicate any complaints about the operation and suggest modifications and adaptations;
- Territorial meetings with stakeholders working at local and regional level within the scope of the project to assess the M&E processes of strategies and actions;
- Design and conduct a baseline study, the results of which will be shared with stakeholders;
- Impact assessments: review studies presented to key stakeholders;
- Sharing exchanges and South-South and Triangular Cooperation (SSTC) events involving vulnerable stakeholders (representatives of traditional peoples and communities, women, young people, and land reform settlers).
- Workshops, training, and exchanges that promote learning about sustainability and resilient practices for young people, women, and traditional communities;
- Train the Technical Assistance team in ethnic/racial/gender perspectives to integrate particular approaches and methodologies in assisting traditional peoples and communities and women;
- Organize and record case studies on initiatives carried out by the most vulnerable stakeholders (women, young people and traditional peoples and communities).

¹⁶ IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse. Available at: https://www.ifad.org/documents/38711624/42415556/SEA_e_web.pdf/85275c4d-8e3f-4df0-9ed8-cebaacfab128?t=1611326846000.

The costs for implementing all the planned stakeholder engagement activities are included in the project budget and will form part of the activities already planned (see details in Annex 3 of the PDR - project costs and financing).

5.4 Proposed timetable

Activity	Year					
	1	2	3	4	5	6
Consult ¹⁷ traditional peoples and communities to establish working agreements.	x					
Implement the baseline study and share its results with stakeholders	x	x				
Analyze the socio-environmental practices and traditions of the most vulnerable stakeholders	x					
Train the technical assistance team in specific factors associated with stakeholders in situations of greater vulnerability (e.g., gender and ethnic-racial sensitization)	x	x	x			
Promote meetings of the governance bodies: Strategic Management Committee, Regional Committees and Municipal Commissions for Coexistence with the Seminar	x	x	x	x	x	x
Promote evaluation meetings with stakeholders		x	x	x	x	x
Promote territorial M&E meetings with stakeholders				x	x	x
Share outcome/impact assessments with stakeholders						x
Promote South-South and triangular cooperation events, including the most vulnerable stakeholders				x	x	x
Organize/record case studies of initiatives carried out by vulnerable stakeholders				x	x	x

¹⁷ In order to optimize budget resources, this activity will not be carried out with specific funds. They will have to be methodologically adjusted to be carried out during the first visit to the communities, with resources already earmarked for the project's activities.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: H Free Prior And Informed Consent Plan

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Capacity Building Project to Overcome Hunger and Mitigate the Effects of Poverty
and Extreme Rural Poverty

Paulo Freire Project - Phase II

ANNEX H: FREE, PRIOR, AND INFORMED CONSENT PLAN

Summary

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1. introduction

When we talk about traditional peoples, the first step is to understand who we are referring to. To do this, we will use the definition given in the National Policy for the Sustainable Development of Traditional Peoples and Communities (2007).

"Traditional peoples and communities are culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition" (item I Art. 3 Decree 6.040 / 2007)¹ .

For traditional peoples and communities (quilombolas, terreiro communities, extractivists, river dwellers, fishers, gypsies, etc.), the right to be consulted on the implementation of state policies, government interventions or any actions by third parties that affect their territories and ways of life is an achievement. Ensuring participatory processes that consider the characteristics of these groups, in the search for consent on anything that affects their lives, even in a positive way, is fundamental if the expected objective of promoting participation and protagonism of these traditional peoples and communities is to be fully met.

The 1988 Federal Constitution was the first time that Brazil recognized the rights of traditional peoples and communities, the right to their cultural preservation, their ways of being, living and doing, the right to the protection and guarantee of their material and immaterial heritage (Article 216). The right to Free, Prior and Informed Consultation (FPIC) came from Brazil's adherence to Convention 169 of the International Labor Organization (ILO), ratified in 2003, and in force by Decree No. 10.088/2009. This convention, which focuses on the rights of indigenous and tribal peoples, extends to traditional peoples and communities, as conceived in Decree No. 6.040/2007.

The instrument for this purpose defines that, in the case of projects that in any way (directly or indirectly) influence the lives of indigenous peoples and traditional communities, Free, Prior and Informed Consultation (FPIC) must be carried out, respecting six (6) main criteria. These are: (i) to *be free*: consultation must ensure that indigenous and traditional peoples are free to express their true opinions, without being coerced; (ii) to *be prior*: consultation must take place at the earliest stage of the decision-making process, allowing participation before definitive directions are given; (iii) to *be informed*: consultation must ensure that all information about the proposal (positive and negative) is presented to the peoples in an educational manner; (iv) to *be accessible*: consultation must ensure that people understand and are understood in the legal processes involved; (v) *be culturally appropriate*: consultation must follow the guidelines of the peoples themselves and offer conditions for them to exercise their socio-cultural knowledge and practices;

¹ BRAZIL, Decree N° 6.040, of February 7, 2007, which institutes the National Policy for the Sustainable Development of Traditional Peoples and Communities.

and (vi) *be in good faith: in other words*, it must ensure indigenous and traditional peoples' ability to influence the decision-making process² .

This guide should be understood as a set of references to get you started on the road to drawing up a consultation plan for the implementation of FPIC under the Capacity Development Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty (Paulo Freire Project - Phase II - PPF II). The first step in this direction should be the participation of the communities to be consulted in all phases of the process, from planning to project implementation. Having these communities actively involved at all stages is a mandatory condition for their rights to be respected.

It is important to understand that the FPIC must provide for a continuous monitoring and evaluation process throughout the duration of the PPF II. Appropriate mechanisms will be put in place for this control, as well as a robust *Grievance Redress Mechanism* (GRM), in accordance with the recommendations and instruments of the International Fund for Agricultural Development (IFAD)³ . During the execution of the project, at any time that there is a perceived need for improvement or that the communities declare dissatisfaction with the terms established, the agreements should be promptly reviewed. Likewise, if the traditional peoples served by PPF II create a Protocol of Consultation (PC), these documents will determine the parameters for future consultations.

2. The right to be consulted

As already mentioned, recognition of the right of traditional peoples, including quilombola communities, to be consulted began with ILO Convention 169 of June 7, 1989, which was the legal framework from which the parameters that gave rise to the other regulations on this issue were established. Brazil signed up to ILO Convention 169 by means of presidential decree 5051 of April 19, 2004. The convention is currently in force in Brazil under Decree No. 10.008 of November 5, 2009.

² International Conservation (2013) - Guidelines for the Implementation of Free, Prior and Informed Consent - a handbook for international conservation.

³ See specific Annex on the Complaints and Repairs Mechanism (GRM).

ILO Convention 169 and the right to consultation

Article 6

1. In applying the provisions of this Convention, governments shall:

a) consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever legislative or administrative measures are envisaged that are likely to affect them directly;

b) establish the means by which the peoples concerned can freely participate, at least to the same extent as other sectors of the population and at all levels, in the adoption of decisions in effective institutions or administrative and other bodies responsible for policies and programs of concern to them;

c) establish the means for the full development of peoples' institutions and initiatives and, in appropriate cases, provide the necessary resources for this purpose.

2. Consultations held in application of this Convention shall be carried out in good faith and in a manner appropriate to the circumstances, with the aim of reaching agreement and obtaining consent to the proposed measures.

Article 7

1. The peoples concerned should have the right to choose their own priorities regarding the development process, as far as it affects their lives, beliefs, institutions, and spiritual well-being, as well as the lands they occupy or otherwise use, and to control, to the extent possible, their own economic, social, and cultural development. In addition, these peoples should participate in the formulation, implementation and evaluation of national and regional development plans and programs likely to affect them directly.

3. Understanding Key Concepts

Free, Prior and Informed Consent (FPIC) derives from traditional peoples' right to self-determination and other human rights guarantees. It acts as a fundamental safeguard of their collective rights. It arises whenever their substantive rights may be affected by a certain plan or action and is a key element in forging a new relationship between traditional peoples and communities, the state and society in general.

Consent: in this context, it is understood according to the simple meaning of the term (i.e., the ability to say yes or no, including conditionally). It refers to a decision taken by traditional peoples after consultation and participation in which they can genuinely influence the process.

Regarding the other terms, the Office of the United Nations High Commissioner for Human Rights (OHCHR) describes that:

Free: implies that there is no coercion, intimidation, or manipulation.

Prior: implies that consent must be sought sufficiently in advance of any authorization or start of activities, respecting the time requirements of the consultation and consensus-building processes among the communities consulted.

Informed: implies that the information provided covers a range of aspects, including the nature, size, pace, reversibility and scope of any proposed project or activity; the objective of the Project, as well as its duration; locality and affected areas; a preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks; personnel likely to be involved in carrying out the Project; and procedures that the Project may entail.

3.1 Consultation Protocol.

Some traditional peoples and communities have already drawn up their own documents establishing their Consultation Protocols.⁴ These protocols are built in a participatory way, with autonomous management and the leading role of the communities. They can be drawn up with the help of partners if the communities so wish. It involves different stages of construction and detailing the rules, methodologies and conditions that must be followed to carry out a consultation with a given group. These documents fully represent a traditional community's perspective on the concepts of Free, Prior and Informed Consultation expressed in ILO 169.

They are manuals on the consultation processes of each community or traditional people. Some detail the different paths depending on the purpose of the consultation (academic research, public policy, or business ventures, for example). They also explain how the dialogue should be prepared, which bodies should be involved, what kind of logistics will be needed to follow the recommendations made and how many days the timetable should be. In short, they deal with all the details of this type of process and determine exactly how that traditional people or community expects it to be done.

IMPORTANT:

During the implementation of the PPF II, FPIC needs to be guaranteed through a continuous and inclusive process of consultation and participation of traditional peoples and communities. The hope is to build a relationship of respect and trust with the communities, their organizations and their own decision-making and governance spaces. Should any of the communities draw up their Consultation Protocol during the life of the Project, this will become the guideline for the Project's consultation processes.

3.2 What FPIC is not

It must be clear that FPIC is a process. In this sense, we have highlighted some activities or characteristics that should not be confused or used to define an FPIC.

⁴ During the preparation of this guide, we identified the existence of CP in only one community served, in the municipality of Taperoá-BA. (See section 7).

Newsletter

FPIC is not simply about informing traditional peoples about something that affects them. The process must be structured in a dialogical way, guaranteeing space for the construction of agreements, proposal adjustments and other instruments that include the communities' perspective.

Events

FPIC is not just about a meeting. These activities may be steps or tools for achieving FPIC, but they do not comprise it, summarize it or define it. FPIC is a process.

Signing a document

At the end of a proper FPIC process, the aim is to get documents signed ratifying consent. However, obtaining a signed document does not necessarily mean carrying out proper FPIC. Nor should it be seen as the central objective of the process. Signing an agreement should be the consequence of carrying out a participatory process, during which communities have received clear information and have had adequate time to reflect and deliberate on the issues under consultation.

Permanent and immutable agreement

FPIC is not permanent. When carried out properly, it allows participants to take a secure position regarding acceptance, refusal, or conditions for acceptance. During its term, there must be provisions to allow traditional peoples and communities to review their positions at any time. It is therefore necessary to understand FPIC as a dynamic agreement. It is drawn up on a clear basis, but with the means to accommodate changes.

4. Planning and Implementing FPIC

There is no specific format in legislation or regulations to serve as a reference. However, based on the practical experience of traditional peoples and communities who have built their Consultation Protocols, many of them with the direct collaboration of the Federal Public Prosecutor's Office (MPF), some steps have been defined that we can understand as the best for this process.

a) Meetings to draw up the Consultation Plan

These are the meetings at which the format of the consultation will be devised, its timetable defined, the logistical needs listed and the budget for carrying out the consultation.

b) Information meetings

This is the stage in which the communities will be informed by the PPF II team, in a clear and detailed manner, about the project, its objectives and implications. This stage is what gives the consultation its bona fide character, making it possible for traditional peoples and communities to fully understand the issue on which they will be deliberating.

c) Internal meetings

At this stage, the traditional peoples and communities debate the issues and make their decisions. In the consultation plan, it will be defined who participates, but we note that it is recommended that the PPF II teams are

not present. This is because participants should feel free to express their opinions or mention internal issues, which is not always possible in the presence of third parties.

d) Negotiation meeting

This is the last stage of the FPIC process. At these meetings, traditional peoples and communities will present their answers, which can be: no, yes or yes with reservations. Hence the word negotiation, because if there are reservations, they will have to be discussed and ways of meeting them negotiated.

4.1 Setting up the PPF II team for FPIC

The first step is to establish the CLPI team, considering the project team and the collaboration of other teams from the project's own PMU. If necessary, it is suggested that support be sought from a specific consultancy hired for this purpose, universities and/or the Federal Public Prosecutor's Office (MPF).⁵

4.2 Role of the Team

It will be up to the team to systematize information about the different components of PPF II, their objectives and related activities in a simple, clear, and accessible way. This basic material should be worked on at a later stage, with the participation of community representatives, with a view to assessing whether the language is appropriate. Considering the diversity of territories covered by the project, the PMU team responsible for FPIC will guide and lead the formation of local teams, or hire a specific consultancy for the FPIC process, for territorial action in the general FPIC execution plan. All logistical activities, the preparation of budgets, consultations, and requests for support from government bodies and local partners will be the responsibility of the FPIC implementation team. Representatives of traditional peoples and communities may participate if they wish, but everything related to providing the necessary means and support to make the consultation possible is the responsibility of the PPF II teams. It must be ensured that the consultation does not generate any kind of burden or expense for the communities that will be consulted.

4.3 Community participation in planning

As soon as the project teams responsible for implementing FPIC have been defined, a group of representatives of the traditional peoples and communities who will be consulted must be defined. These representatives will be responsible for pointing out cultural aspects and the social dynamics of their communities, as well as logistical and geographical issues in their regions that could interfere with the consultation process. They will also have to contribute to the preparation of presentation materials for the communities, providing information on the most appropriate formats, type of language and necessary resources. In order to

⁵ The MPF has supported and supervised consultation processes, so it has expertise in the subject.

guarantee the legitimacy of the representation of those involved, PPF II will work in partnership with federal and state institutions (ministries, secretariats, sub-secretariats, etc.) that deal with policies aimed at indigenous peoples and traditional communities and, as a priority, with associations and collective groups from the socio-cultural structure of the peoples served by the Project in the territories.

Also at this stage, representatives of indigenous peoples and traditional communities should contribute by pointing out what the internal decision-making processes are like and who the groups are that should be consulted. This information will be important for defining the consultation strategy and timetable. It is worth emphasizing that these two factors should ensure that the consultation is carried out in the way that is most comfortable for the communities in terms of the format and methodology of the meetings. They will also allow the ideal pace of work with each group to be established, to ensure adequate time for reflection and internal discussion before deliberating on consent.

ATTENTION:

The most sensitive point for FPIC is precisely time. Considering the reason for holding FPIC and its history as a right of traditional peoples, **under no circumstances should ways be sought to speed up the processes during the implementation of the consultation.** When drawing up timetables, in addition to listening to community representatives about the ideal periods, an extra margin of time should be included to deal with any complications, without jeopardizing the communities' time for listening, speaking, and deliberating.

4.4 Preparing Logistics and Consultation Strategies

Once the representatives of traditional peoples and communities who will take part in the planning for the consultation have been defined, this group must be given due prominence. Participatory construction should provide space for representatives to contribute the details needed to carry out the FPIC process in a way that suits each community.

The information they provide should be used as parameters when designing the methodologies and strategies for implementing FPIC. It is very important to seek out as much information as possible to understand the dynamics of the communities, to avoid creating or aggravating any conflict in the implementation of FPIC, as well as in the other stages of PPF II.

The table below has been organized as a reference of questions that may be important in order to ensure socio-cultural adequacy, guarantee means of full and effective participation for the different groups, as well as efficiency in the exchange of information. The table is a starting point for dialogue and not a closed script of questions and should be completed with the support of the representatives of the traditional peoples.

- | |
|--|
| 1. How do internal community meetings take place? (Who takes part? In what form? How long do they usually last? Is there a more suitable time to hold them?) |
| 2. Are there any traditional bodies that must be consulted (e.g., council of elders or spiritual leaders)? |
| 3. How comfortable are the communities with the Portuguese language, which is generally spoken at meetings? What should be avoided in this communication? |

5. How well do you read and write Portuguese?
6. Are there specific dynamics for consulting specific groups (elders, women, and young people)?
7. Does women's participation normally take place in general meetings or is it more appropriate to provide specific spaces for women's participation?
8. What type of composition do you think is most suitable for holding meetings?
9. What is the infrastructure like for meetings at each location? Are there adequate or easily adaptable spaces for meetings? Is there electricity or does it depend on a generator?
10. What are the logistical details for moving the groups within the territory (if necessary)? What type of transportation, distances, amount of fuel needed?
11. How should the times be organized during the implementation of FPIC to consider its different phases? Example: 1. Presentation to the community - morning; 2. Clarification of doubts - afternoon; 3. Reflections/internal meetings - evening and morning of the following day; 4. Clarification of remaining doubts and deliberation - afternoon. This distribution is just an example. Special attention needs to be paid to this distribution of time to guarantee the quality of the consultation, respecting the communities' times absolutely, according to the information passed on by their representatives.
12. If food is provided for all participants during the activities (lunch, snacks), how should this be organized at each location? What is the appropriate menu? Are there cooks who could be hired locally to support this activity?
13. Is there any kind of tension or internal conflict that could be aggravated by the methodology defined for FPIC, because it brings together groups that are currently far apart?
14. Are there any conflicts or tensions around the communities that could cause problems or risks for displacement?
15. How do you suggest FPIC be evaluated and monitored during the life of the project? (Suggestions for validation in the local stages).
16. How do communities access telephone and Internet services?

4.5 Preparation of presentation material for the communities.

Also in the preparatory stage, representatives of traditional peoples should be involved in drawing up presentation materials for their communities, defining formats and the type of material best suited to each context. The indications given by the representatives of the traditional peoples and communities to be consulted should be used as a guideline. It is hoped that this will enable the communities to understand the proposal and its aims.

It should be included in presentations:

1. **Framework of actors** (Who are the institutions involved in PPF II, what are their objectives and why do they believe it is important to support the communities in their actions);
2. **General Objective** (As proposed in PPF II);
3. **Specific Objectives** (including project components);
4. **Activities** (outline of proposed activities);
5. **On image rights** (clarify that, when carrying out the activities, images will be taken for reports and promotional materials for non-commercial or profit-making purposes).

These suggestions are the points we consider indispensable for the presentations. Questions raised by representatives of traditional peoples and communities during the planning process could complement these items.

5. Drawing up the Consent Form

The consent form should be drawn up in a participatory manner. It should make it clear who the parties involved are, what the objectives of the agreement are, how the consultation took place (methodology⁶, place, and date), the communities' indication of who will represent them when they sign the document (association, leader, or community members). And finally, the signing of the document describing what has been agreed between the parties.

6. Internalization of FPIC in PPF II

Once FPIC has been carried out with the communities, the information resulting from this process should be incorporated into the Monitoring and Evaluation (M&E) mechanisms of PPF II, as well as the Grievance Redress Mechanisms (GRM). The aim is to ensure that FPIC is monitored so that the necessary adaptations can be made to meet the demands of traditional peoples and communities, such as indigenous peoples and quilombolas.

7. Terms of Reference

Should it be necessary to hire a specialized consultancy to support PPF II in carrying out consultations with traditional peoples and communities in the Project area, a basic Terms of Reference for this is presented below.

The objective of the consultancy is to carry out the FPIC process with the traditional peoples and communities selected to participate in the PPF II, supporting the Safeguards Specialists of the Project Management Unit (PMU) and other members of the Project team responsible for FPIC.

7.1 Consulting Scope

The consultancy's main **activities** are as follows:

- Define the consultation methodology and strategy with the effective participation of the traditional people and communities to be consulted.
- Based on the methodology developed, such as the number of information meetings, the approximate number of participants, food, and transport logistics, define and draw up a plan for the logistical structure that will be needed and a budget for the costs of running the consultation.
- Prepare the material about the project that will be presented to the community(ies) in a culturally appropriate way, for example, considering the local language.
- Hold consultation meetings in the communities (informational, internal and negotiation).
- Preparing the Consent Form template in a participatory manner.

⁶ Objectively. Example: after presenting the objectives "on such and such a day", from time "X" to "Y", the community met "for a certain time" to deliberate on the consultation.

- Report on the FPIC process and the results of the consultation.

7.2 Profile, training and experience required

Profile

- Ability to work independently and generate high-quality products with minimal supervision.
- Excellent oral and written communication skills.
- Demonstrates sensitivity and adaptability to culture, gender, religion, race, nationality, and age.
- Excellent analytical and organizational skills.

Educational training:

Minimum requirements:

- Master's degree or higher in Anthropology, Social Sciences, or related areas of specialization.

Desirable requirements:

- Experience in sustainable development projects for traditional peoples in the Caatinga biome;

Professional Experience:

Minimum requirements:

- Minimum 5 years' experience working in Brazil with community engagement and indigenous peoples and traditional communities.
- At least 5 years' proven experience in conducting FPIC processes or similar exercises in the context of development projects.

8. Budget

In the Management section of the project budget, R\$100,000 was earmarked for 5 FPIC processes in the PPF II intervention area, one in each planning territory covered.

Activity	Unit	Unit Value	Quantity	Total Value (R\$)
Consulting				
Drawing up the methodology	hours	140,00*	40	5.600,00
Field for consultations (2 days)	hours	160,00*	32	5.120,00
Reporting	hours	120,00*	40	4.800,00
Meeting logistics				
Transportation (consultant and participants)	people	50,00	30	1.500,00
Food (consultant and participants) - breakfast, coffee break, and dinner. Note: including the cost of paying the professional who will be cooking.	people	100,00	30	3.000,00
Grand total of a meeting				20.020,00

*The consultant's daily rate varies according to the complexity of the activity and is based on the market rates currently charged for similar activities.

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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: I Seeds

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Annex I – Supporting creole seed development, seed banks and local participatory plant breeding.

The following section describes activities that can be developed at rural territories under the productive or environmental PDRLs.

The importance of seeds for agrobiodiversity

Seeds are a fundamental input that determines the development of agriculture and seed diversity is crucial to ensure sustainability in food, agriculture and agrobiodiversity. Agrobiodiversity is essential to maintain agroecosystem functions, structure, and processes, such as pollination, natural pest control, and water purification, among others. This loss of diversity, including genetic diversity, poses a serious risk to global food security, undermining the resilience of many agricultural systems to threats such as pests, pathogens, and climate change. Farmers are replacing their locally adapted crop varieties and landraces with genetically uniform, high-yielding varieties promoted by industrialized agriculture. This occurs as a result of promoted agricultural practices and the use of external inputs not adapted to the realities of many farmers and climate change, perpetuating poverty.

Farmers play a fundamental role in agrobiodiversity conservation, collaborating with nature by maintaining and selecting locally adapted seeds. On-farm conservation and informal seed exchanges are widespread practices among smallholder farmers¹. In particular seed guardians safeguarding agrobiodiversity and the traditional knowledge associated with its sustainable use in local production systems, collaborating with nature and maintaining and selecting locally adapted seeds. This role is fundamentally played by women and PCT, valuing their role in agrobiodiversity conservation.

However, these practices often lack appropriate techniques for the proper conservation and diversity of genetic material, raising concerns about the potential sharing of seeds containing pests. While family farmers engage in the conservation, sharing, and utilization of diverse seeds, it is essential to support these practices through technical training and organization. This support aims to enhance both agrobiodiversity and the quality of locally adapted and indigenous varieties.

Strategies for the reintroduction and improvement of locally adapted and native varieties are rooted in the recovery and management of agrobiodiversity. Success in these strategies hinges on adopting a participatory and co-constructive approach involving producers, their communities, researchers, and technicians.

Consequently, this strategy unfolds in three essential activities: i) diagnosis of agrobiodiversity; ii) strategy for rescuing and conserving genetic material; iii) strategies for in situ participatory genetic plant breeding. The last activity is the more technically complex and it is advised to be developed in rural territories where the first two steps have been already well developed and established.

Activity 1. Agrobiodiversity Diagnosis.

The first and fundamental stage of this work consists of carrying out the Agrobiodiversity Diagnosis, whose objective is to identify the diversity of conserved species and varieties, as well as their risk situation. During this stage, a preliminary identification of the guardians in the area is carried out, which will guide the selection of territories and communities for their participation in this proposal. A rapid agrobiodiversity diagnosis can be carried out during the formulation of the PDRLs for each rural territory and can be

¹ Seed for Diversity and Inclusion. Agroecology and Endogenous Development. Edited by Yoshiaki Nishikawa and Michel Pimbert, 2022.

Annex I – Supporting creole seed development, seed banks and local participatory plant breeding.

furtherly developed and detail for those territories where environmental PRDLs plans have chosen to improve or create community seed banks as well as further improved local seed varieties.

A set of participatory tools will be used in collective workshops, which will provide an initial process of mobilization, animation and valorization of seeds and animal breeds. These tools will also collect information related to the diagnosis, such as the number and location of guardians, the species and varieties conserved, the risk status of these materials, their origin and the length of time they have been in the community. In addition, local talents can be identified to strengthen the capacities of producers and guardians of agrobiodiversity, generating empirical evidence and improving the capacity to disseminate information and services in coordination with authorities and collaborators. Based on this diagnosis, actions of work can be identified such as collective learning units, expansion of managed diversity, incorporation of trees in production systems, especially native and adapted (fruit and forage), evaluation of species and varieties, including forage (native and adapted) and its multiplication, community seed banks, participatory plant breeding, and seed fairs strengthening.

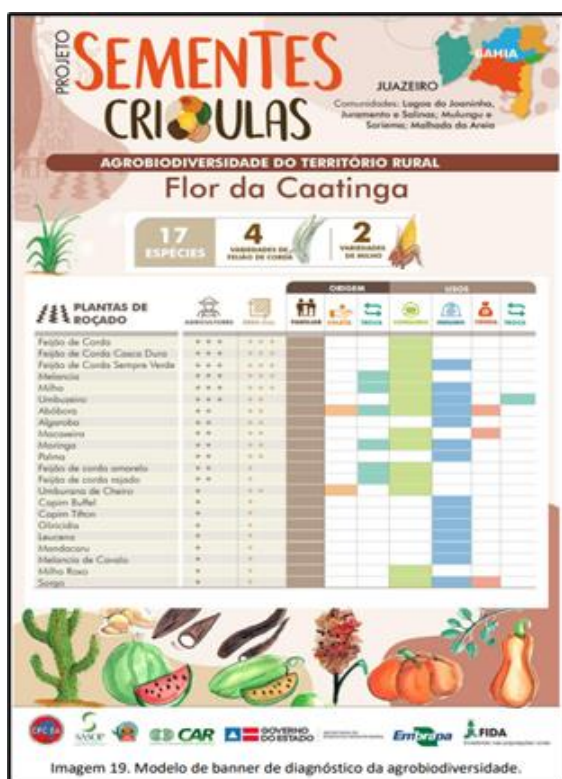


Imagem 19. Modelo de banner de diagnóstico da agrobiodiversidade. From IFAD PSA, Bahia project.

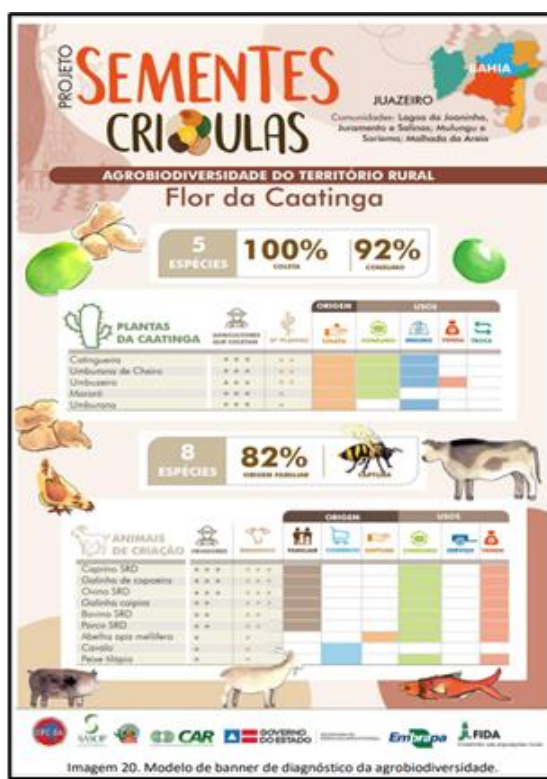


Imagem 20. Modelo de banner de diagnóstico da agrobiodiversidade.

Annex I – Supporting creole seed development, seed banks and local participatory plant breeding.

Activity 2. Strategies for the Rescue and Conservation of Identified Varieties and Species:

These set of activities required a robust support and specialized technical training, as it constitutes a highly specific area of work, particularly when it comes to participatory plant breeding (PPB). PPF2 will then partner with technical units from Embrapa² specialized on these areas of work and can also identified local service providers (NGOs, POs) that may have technical expertise. It has to be considered, however, that local service providers may not have or have little expertise so it would be necessary for Embrapa to lead, facilitate and train local technicians as well as producers.

2.1. Support for the Development of Local Seed Banks: The PPF II will support the development of local seed banks as well as the establishment of nurseries for the propagation of species seedlings facing genetic erosion and the creation of community banks of creole (native) seeds. This support can be to new or existing seed guardians and community seed banks. It could be supported under a productive PDRL, for the first case or a community environmental PDRL for the later case. The Project will collaborate with guardians identified in the agrobiodiversity diagnosis carried out during the PDRL together with the local territory's environmental management group.

Areas implemented in the field can also be considered seed banks (as nurseries or as agroecological corridors)³, and can be together with the strategy of conservation in the field since they are spaces for the replication of species and cultivation of plants whose are propagated by vegetative material, such as fodder palm and cassava.

This activity will encompass:

- Technical assistance in the conservation of quality genetic material.
- Provision of materials for in situ seed banks (storage, containers, notebooks for records, etc.).
- Technical training for guardians, covering aspects like registration, replenishment, and conservation techniques.
- Ongoing follow-up to ensure effective implementation of conservation measures.

There are at least two complementary processes and uses to consider when supporting seed banks and guardians: the retrieval of lost materials and the maintenance of the material stock.

The retrieval of lost materials: includes obtaining germplasm and reintroducing varieties and species that are no longer available locally or that are interesting to conserve and use for genetic improvement. They can come from public germplasm banks and maintainers that are not in the region. The choice of germplasm is fundamental also if a participatory breeding program could be later developed.

Technical specialists and researchers, along with the researchers of the germplasm banks of each institution, will play an important role in accompanying field technicians and producers in finding suitable materials and making them available when they are not in rural areas. The reintroduction and conservation of species and varieties will depend on each agroecological zone and range from food crops, native forage plants, and plants of particular interest for agrobiodiversity. It is important to introduce systems for the classification and description of materials. Creating a registration map of the varieties, detailing culinary, climate, and other characteristics.

² Embrapa GOIAS for example for PPB has been working with MST in Sergipe on PPB and training local technical experts.

³ AGROBIODIVERSIDADE E CORREDORES AGROECOLÓGICOS . Altair Toledo Machado; Cynthia Torres de Toledo Machado.2013, Embrapa

Annex I – Supporting creole seed development, seed banks and local participatory plant breeding.

Stock maintenance: should also consider using less-used varieties with the aim of preserving agrobiodiversity or potential breeding for more adapted varieties. The seed banks should focus on maintaining a minimum stock of consistent quality. This can be achieved through collaborative efforts between seed banks and farms managed by the groups associated with the seed banks for variety reproduction and maintenance.

2.2. Evaluation and facilitation of the genetic improvement of varieties adapted and produced with participatory methodologies. Practically, participatory breeding, aims at developing varieties adapted to agroecological systems and requires conducive environments for ongoing development and recurrent selection cycles within agroecosystems managed in an agroecological manner.

This activity is a continuation of the agrobiodiversity diagnosis, seed banks (genetic material recovery and genetic stock maintenance activities). The diagnoses and materials previously collected and selected for other activities will concurrently serve as a foundation for this activity. It is thus advised that this activity is developed when the first 2 steps are fully developed, particularly on the seed banks and stock maintenance activities and there is a real interest and commitment from communities to move forward with the plant breeding process.

The participatory breeding strategy in the farmer's field is based on a broad dialogue and characterization of local genetic diversity, thus defining the initial strategies of the participatory breeding process. This process is entirely decentralized. Multiplier farmers or other innovative producers that are also involved as seed guardians could be identified to lead in their rural territories the process and could potentially be also trained on specific technical aspects under Component 3. PPF2 could work with the PPB methodology developed by EMBRAPA and could potentially considered also working with the Evolutionary Plant Breeding methodology⁴ developed by international experts and already tested with other IFAD grants⁵.

The activity should at least span into 3 productive cycles. Producers and technicians will collaboratively determine the crops and objectives for each improvement in a co-construction approach. The multiplier farmers' fields will serve as the focal points for PPB work conducted in groups, with approximately 20 producers participating in each PPB plot. Field technicians, trained in the subject, will provide guidance not only in the realm of genetic improvement but also under an agroecological production approach. PPB is divided into germplasm collection and evaluation, as well as characterization assays.

- Germplasm collection: The selection of germplasm is crucial for the participatory breeding program. The key focus is to assess the potential of these varieties in the environments where they will be selected and to determine if local varieties are undergoing a genetic erosion process or if they are inferior to other varieties.
- Evaluation and characterization trials aim to characterize and evaluate different varieties. The restauration of agrobiodiversity occurs through the rescue, introduction, and valorization of local varieties. This process continuous the work done with seed banks and involves assessing the adaptation potential of different varieties to various agroecosystems, considering different management systems,

⁴ EPB It is a strategy used to enhance the diversity and stability of a crop in a specific environment through natural selection, working with heterogenous populations, addressing challenges such as population expansion and climate change. This approach enables cultivated plants to evolve under the pressure of natural selection, adapting to their environment.

⁵ Currently being also included in GP-SAEP grant for Bolivia, Argentina and Brasil (Bahia and Sergipe)

Annex I – Supporting creole seed development, seed banks and local participatory plant breeding.

and evaluating their tolerance to different biotic and abiotic stresses. Various usage characteristics are also analyzed, including applicability in cooking, handicrafts, and cultural events, among others. Genetic parameters, such as heritability, stability, and genotype-environment interaction, can be estimated for various purposes: i) Knowledge of diversity, ii) Evaluation of genetic erosion; iii) Yield assessment in agroecological systems; iv) Pedagogical and learning aspects for the breeding process.

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: J Fostering Innovation

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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ANNEX J. FOSTERING INNOVATION

I. Objectives and promotion models

This activity's main objective is to generate job opportunities for young people and encourage them to be bearers of innovation centers, while promoting and consolidating technological innovations adapted to family farmers.

This promotion will take place on three fronts: i) the formation of new micro-enterprises and the growth of existing micro-enterprises, ii) pilot projects to encourage research, and iii) digital services.

II. Micro companies

Under subcomponent 3.3, the Project will finance research and development of Pilot Projects for products or services (existing or new), such as energy solutions (eco-stoves) and/or sanitation (micro water treatment systems, recycling of household waste, etc.). These innovations should be designed in such a way that they are technically and financially viable enough to be implemented in the PPF II area, and in other areas of semi-arid Brazil.

Through subcomponent 2.2, the Project will finance the innovations developed in subcomponent 3.3, supporting the development of micro-enterprises (backyard and garage) aimed at implementing customized products and technologies for the local context.

In addition to these innovations, sub 2.2 could also support the dissemination of other innovations on the market, such as machinery adapted to small producers, products derived from native/traditional species, bio-inputs (soil nutrition, bio-insecticides), water use efficiency, solid waste treatment, equipment for processing and adding value, etc.

PPF II could support university incubators, EFAs and/or Rural Schools, to help develop the business models of micro-enterprises, as a stimulus for scaling up and involving young people. A suggestive list of incubators and accelerator programs can be found in Annex 1 of this document.

a. Priority themes

- 1) **Agroecological Markets and Local Biodiversity:** Promoting nutrition based on local biodiversity, through the development of products derived from native/traditional species, the extraction of oils and essences, the creation of agroecological fairs, greengrocers, restaurants, and snack bars, etc.
- 2) **Adapting to Climate Change:** water harvesting and efficiency technologies, climate comfort, etc.
- 3) **Access to renewable energies:** Financing and installation of solar panels, heat pumps, energy efficiency works, reduction in the use of firewood, biodigesters, etc.
- 4) **Soil nutrition and integrated pest/weed management:** manufacture of organic fertilizers and products used in the biological control of pests and weeds, such as the production of green manure seedlings and seeds, inoculation of natural enemies, production of compost, bio-sludge, and other bio-inputs.
- 5) **Mechanization for small producers:** Adapted mechanization for agroecological and agroforestry family farming, such as motor cultivators, forage palm choppers and feeders, long-arm pruning shears, woodchippers

and other small implements. Companies that share or rent¹ machines and implements will also be supported.

- 6) **Technologies for Cooperatives and Associations:** machines and implements for cooperatives and associations, such as pulpers, dehydrators, dryers, mills, packaging machines and processing machines in general, as well as recycling machines such as waste separators and processors.

b. Benefits

The companies or teams selected may receive the following benefits:

- i. Financing of up to R\$ 50 thousand,
- ii. Technical consultancy,
- iii. Mentoring focused on the business and the market,
- iv. Development of business plans,
- v. Support with design and visual communication,
- vi. Networking and partnership opportunities

c. Criteria

Exclusion Criteria: These are mandatory criteria. Candidate teams that do not meet these requirements will be eliminated.

- 1) Social Criteria:** The company must have social and environmental impact as its main objectives, aiming for low prices for farmers and fair pay for workers.
- 2) Competitiveness:** The company should not aim to gain market power through mergers and acquisitions (buying out competitors).
- 3) Intellectual property and the right to repair:** The company should not seek to obtain private patents that hinder access to technology by registering any invention in the public domain. The company should publish its technological advances on freely accessible platforms. Machinery, implements and equipment should be designed in such a way that they are easily repairable using accessible technologies and with easy replacement of parts, thus avoiding the user being forced to buy a new copy.
- 4) Economic sustainability:** The company must prove that there is a demand for its service/product in the long term.
- 5) Environmental sustainability:** The company must show that its product/service does not generate significant environmental impacts (GHG emissions, waste, etc.).
- 6) Local Impact:** Team members come from the project regions.

Prioritization Criteria: These are non-mandatory but desirable criteria and can therefore be used as a tiebreaker.

- 1) Valuing and integrating indigenous and traditional/ancestral knowledge and technologies.
- 2) Focus on young people and young women. We suggest quotas of 50% for women and 50% for young people, with 50% of young people's places reserved for women.

¹ <https://www.sciencedirect.com/science/article/pii/S0308521X18314914>.

<https://repository.cimmyt.org/xmlui/bitstream/handle/10883/22429/65927.pdf?sequence=1&isAllowed=y>

d. Evaluation Committee

The evaluation committee responsible for selecting the teams and companies will be made up of members of the public authorities, universities, companies, and farmers. It should prioritize the presence of women and people from the project areas.

III. Pilot projects

a. Encouraging research and innovation

Subcomponent 3.3 will focus on promoting technological research and implementing pilot projects that are affordable and viable, with the potential to become rural businesses. These projects will seek to use renewable energies, reduce the use of firewood and biomass, and improve the quality of water for human consumption, among other actions. Examples of possible pilot projects include:

- Development of eco-efficient stoves and solar ovens.
- Equipment for treating water from cisterns for human consumption.
- Alternatives to the use of firewood in small cassava processing units and other forms of processing.
- Solutions for recycling solid waste to produce handicrafts and generate energy, improving families' living environments and generating income, especially for women, young people, Afro-descendants, and indigenous peoples.
- Tools for rural digital inclusion, especially for vulnerable groups, such as measuring the carbon balance and soil fertility.
- Experiments and solutions in bio-saline agriculture to promote production adapted to saline environments.

Reference centers could be established to serve as sites for the dissemination and scalability of knowledge, in collaboration and networking with partners such as universities and research centers. These interventions' methodology will be based on close collaboration with family farming organizations throughout the process, from the identification to the implementation of the initiatives. This will be done to achieve social integration and ownership of the solutions by the beneficiaries. Special attention will be paid to women and young people of African descent from quilombola communities, respecting their traditional methods of resource and land management. The collection and analysis of lessons learned, and good practices obtained in the pilot projects will enable their subsequent transfer through triangular and South-South cooperation to other countries in Latin America and the Caribbean (LAC) or the Sahel region.

a. Encouraging existing projects

Subcomponent 2.2 will also support pilot projects and the expansion of projects led by the public sector, such as municipalities and sanitation agencies. These initiatives include:

- i. Urban selective collection with the production of compost for rural areas, as seen in the Itapipoca town hall,
- ii. Collection of dry waste in rural areas,
- iii. Composting system for rural families,
- iv. Biodigesters for human waste with adapted toilets,
- v. Reuse of composted sewage sludge in agriculture, as exemplified by CAGECE
- vi. Constructed Lagoon Systems for rural sewage treatment.

vii. Digital Services

Through component 2.2, the project will be able to finance the generation of diagnostic information and the development of digital tools for family farming, such as digital technical assistance, digital information services (prices, agro-climate, logistics, etc.), digital financial services, digitization of the supply chain, e-commerce, among others.

Although the main aim of the project is to encourage new technologies, many existing technologies are not widely used and could be put to better use, for example by creating virtual technical assistance ecosystems. Such reuse would save time and resources in the creation of new technologies, making the most of past investments.

The project will prioritize the use of existing technologies, for example the SECAF/SIRAF database, EMATERCE's remote ATER application, technologies developed by EMBRAPA, or solutions identified through South-South cooperation. Integration of ancestral/traditional technologies would be a plus. A list of existing applications can be found in Annex 2 of this document.

Some of the tools identified for development are listed below. Other activities may also be considered if they prove relevant during the course of the project.

1) Digital services for small farmers

- a) Digital technical assistance: education, training, and access to production tools, such as agroecological techniques, identification of plants, insects and recommendations for green manure or pest control.
- b) Information services: Pricing, logistics, weather information and early warning systems, etc.
- c) Financial services: financial management tools and access to financial services such as easy credit and insurance
- d) Digitization of the supply chain: recording of information, planning tools, sharing of implements, shared transport of products and inputs, etc.
- e) Access to markets and e-commerce: Selling products, buying inputs, etc.

2) Digital services for cooperatives and associations: Resource Sharing, Market Access, Management Tools, etc.

Annex 1: List of accelerator and incubator programs in Ceará, funded by the state, NGOs, or the private sector.

State	Program	Details
Ceará	Digital Corridors	<p>It is an innovation hub that seeks the economic development of the state of Ceará through various lines of action, such as Ideation, Traction and Social Impact. It belongs to the Secretariat for Science, Technology and Higher Education.</p> <p>It offers training, mentoring, networking, prototyping infrastructure (through CriarCE), partner benefits, and the provision of advisory services, but no direct funding.</p> <p>Site: //corredoresdigitais.info/?doing_wp_cron=1694214753.5801930427551269531250</p>
Ceará	CriarCE	<p>Acceleration program run by the Ceará State Government's Department of Science, Technology and Higher Education, focused on hardware development.</p> <p>It provides physical infrastructure for prototyping and development, technical consultancy, mentoring focused on the business and the market, support with design and visual communication and networking, but does not offer cash prizes. In 4 editions of the program, 85 startups have been accelerated.</p> <p>Website: https://www.sct.ce.gov.br/criarce/</p>
Ceará	StartupCE	<p>Pre-acceleration program with mentoring, training, and getting closer to the target audience (networking), but no cash prizes. 50 startups were selected in 2021. SEBRAE is a non-profit organization.</p> <p>Website: https://sebrae.com.br/sites/PortalSebrae/ufs/ce/sebraeaz/2-ciclo-de-pre-aceleracao-de-startups-do-sebraece,2bfd60d9a98a4610VgnVCM1000004c00210aRCRD</p>
Ceará/National	Tecnova III	<p>Tecnova is a national program that works in different states through the state science and technology secretariats. Its aim is to support the development of innovative products and processes by Brazilian companies to boost economic sectors considered strategic in federal public policies and state innovation policies.</p> <p>In Ceará, approximately 40 startups and innovative companies will benefit from Tecnova III. Each one will have a budget of up to R\$ 66,666.67 for acceleration and an amount available for investment of R\$ 24,000 to support the internationalization of the companies.</p> <p>Website: https://www.funcap.ce.gov.br/2023/07/25/chamada-para-aceleradoras-de-startups-e-agencias-de-internacionalizacao-programa-tecnova/</p>

Northeast Region	Innovation with Impact Challenge (Somos Um CE)	<p>Selection of 6 impact businesses from the North and Northeast regions whose claims include solutions to socio-environmental problems. At the end of the challenge, 2 participating businesses are awarded R\$ 50,000.</p> <p>Website: https://www.somosumce.com.br/about-4-1</p>
Northeast Region	Motirô Incubation (Impacta Nordeste)	<p>Incubation of 20 impact businesses in the peripheries of the northeast, with individual mentoring, learning modules and webinars.</p> <p>Motirô is a virtual incubator for social impact businesses. It provides learning of the main knowledge and tools for structuring companies, facilitated by expert professionals, with the support of market mentors and access to a support community.</p> <p>Website: https://impactanordeste.com.br/periferias/</p>
Northeast Region	Family Farming Acceleration Program (Fundeci)	<p>Financing projects that improve productivity levels, sustainability (ESG practices) and that help spread technologies and innovation to family farmers living in the Banco do Nordeste's area of operation.</p> <p>The program restricted participation to non-profit institutions (public or private). Seventeen projects were selected and 12 more remain on the waiting list in case there are sufficient funds. In total, the program will distribute R\$14 million in prizes of a minimum of R\$100,000 and a maximum of R\$1 million. Each project must reach at least 50 families.</p> <p>Website: https://www.bnb.gov.br/web/quest/fundeci</p>
Northeast Region	Entrepreneurial Education Program (Fundeci)	<p>Banco do Nordeste's Fund for Economic, Scientific, Technological and Innovation Development (Fundeci) has selected five startup acceleration projects in the Northeast, two of which are in Ceará.</p> <p>In total, the accelerators received R\$ 8 million to foster innovative entrepreneurship and the sustainable development of companies in their early stages. Each selected project will offer 60 places to startups, 30 for the Ideation module and 30 for the Traction module.</p> <p>Website: https://www.bnb.gov.br/web/quest/fundeci</p>
National	SEBRAE	<p>The Brazilian Micro and Small Business Support Service (SEBRAE) is a private entity that promotes the competitiveness and sustainable development of micro-small business ventures. It focuses on strengthening entrepreneurship and speeding up the process of formalizing the economy through partnerships with the public and private sectors, training programs, access to credit and innovation, stimulating associations, encouraging entrepreneurial education in formal education, trade fairs and business roundtables.</p> <p>https://sebrae.com.br/sites/PortalSebrae/</p>

National	BNDES Garage	<p>Investment fund and acceleration program created by the National Development Bank (BNDES) in partnership with Artemisia, Wayra, and Liga Ventures.</p> <p>It has two entry categories, Creation and Traction, for companies at an early and advanced stage, respectively. It awards up to 20 companies in the Creation category with R\$20,000 and up to 25 companies in the Traction category with R\$30,000, for a total of R\$1.15 million invested.</p> <p>Website: https://garagem.bndes.gov.br/</p>
National	Start-Up Brazil	<p>The National Startup Acceleration Program aims to leverage the acceleration of technology-based startups through a partnership between the government and the private sector (Accelerators).</p> <p>In each edition, 50 startups receive investments of up to R\$400,000, of which R\$200,000 comes from the program and R\$200,000 from the private sector. To date, 229 startups have won awards in 5 editions of the program.</p> <p>Website: https://www.startupbrasil.org.br/</p>

Annex 2: Existing applications that can be used in technical assistance.

Application	Link
Pest identification	
EMBRAPA's InNat Guide (also helps identify natural enemies):	<p>https://www.embrapa.br/agencia-de-noticias-embrapa/busca-de-noticias/-/noticia/31597890/aplicativo-auxilia-na-identificacao-de-inimigos-naturais-de-pragas-agricolas</p> <p>https://play.google.com/store/apps/details?id=br.embrapa.innat</p>
Adama Alvo	<p>https://blog.jacto.com.br/20-aplicativos-de-agricultura-que-voce-precisa-ter-no-celular/</p> <p>https://play.google.com/store/apps/details?id=com.adama.fieldsolve&hl=pt_BR</p>
Agrobase	https://play.google.com/store/apps/details?id=lt.farmis.apps.farmiscatalog&hl=pt_BR&pli=1
Agrio	https://play.google.com/store/apps/details?id=com.agrio&referrer=utm_source%3Dagrio%26utm_medium%3Dwebsite
Identification of Nutritional Deficiencies	
Yara CheckIT	https://play.google.com/store/apps/details?id=com.yara.checkit&hl=pt_BR

Identification of Plants (Weeds or Beneficial)	
PlantNet	https://play.google.com/store/apps/details?id=org.plantnet&hl=en&gl=US

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: K Gender Nutrition Youth Lgbtqiapn And Social Inclusion

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ANNEX K: GENDER, NUTRITION, YOUTH, LGBTQIAPN+ AND SOCIAL INCLUSION STRATEGIES

Gender Strategy

Context

In the Project area, there are 1,271,632 women, which corresponds to 50.9% of the total population, and 1,227,973 men (49.1% of the total population)¹. In Ceará, the Gender Disparity Index is 0.66, indicating that women in Ceará are 34% less likely to have the same opportunities as men, with the biggest gaps being in the dimensions of political empowerment and economic opportunities². In addition to the devaluation of women's productive work, gender disparities are expressed in restrictions on control and access to natural, social, and monetary resources. Great inequality persists in the management of production units: only 18.5% of family farming establishments in the semi-arid region of Ceará are run by women and only 13.6% by young women under the age of 35³. In terms of area, the average area (hectares) of establishments run by men is 76.6% larger than those run by women (7.7 x 13.6ha). Among the multiple legal, cultural, and structural barriers that exclude women from land rights are the patriarchal culture about the division of labor between the sexes in the public and private spheres and the practice of giving land rights only to one representative of the family - the man.

One strategy for rural women to expand their space and independence has been education, with women generally having higher levels of education compared to men. Among women family farmers in the Project area, 20.8% have never been to school, while among men, 28.3% have. Despite better educational indicators, women's average income is lower - northeastern women earn, on average, 86.5% of men's income⁴. The so-called selective rural exodus of more educated young women is a contemporary phenomenon that has intensified in the context of agricultural modernization. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of rural family farming establishments aged up to 35 in the semi-arid region of Ceará fell by 9.7 percentage points (from 21.2% to 11.5%). The invisibility and devaluation of female labor in childcare, household chores and family farming also encourage younger women to leave rural areas. Despite women's fundamental contribution to agri-food production, the social reproduction of family farming and community development, their work is often made invisible because they are not part of the formal labor market and because part of women's productive activity does not involve monetized transactions. IBGE data (2017) shows that 86.5% of women family farmers in the semi-arid region of Ceará produce for their own consumption, compared to 80.7% of men. An IFAD study also shows that self-consumption represents 34.1% of the value of production brought in by women family farmers in IFAD projects⁵ compared to a national average of 17.8%⁶. With

¹ IBGE (2022). Demographic Census.

² BENIGNO, Gabriel Oliveira Loiola; VIEIRA, Diego Mota; OLIVEIRA, Jessica Eloísa de. The gender gap in Brazilian states and stakeholder analysis of the National Council for Women's Rights. *Revista de Administração Pública*, v. 55, p. 483-501, 2021. Available at: <https://www.scielo.br/j/rap/a/xkJn9DbJmFbXnMVvcmcYdyFG/?format=pdf&lang=en>.

³ IBGE (2017). Agricultural Census.

⁴ IBGE (2021). Gender Statistics: Social indicators of women in Brazil. 2nd edition. https://biblioteca.ibge.gov.br/visualizacao/livros/liv101784_informativo.pdf.

⁵ IFAD (2021). One-year analysis of the use of Agroecological Notebooks in IFAD-supported projects in Brazil. Available at: <https://www.ecoagri.com.br/web/wp-content/uploads/cadernetas-agroecologicas.pdf>.

⁶ LEITE, S. "Autoconsumo y sustentabilidad en la agricultura familiar: una aproximación a la experiencia Brasileña", In: BELIK, W. Políticas de seguridad alimentaria y nutrición en América Latina, São Paulo: Hucitec, 2004.

work dynamics concentrated in the private sphere, they are generally excluded from decision-making on the use of financial resources.

Access to Technical Assistance (TA) for women is also lower than for men. While 11.6% of male family farmers (FAs) in the Project area receive TA, only 8.7% of female FAs do. There are also lower rates of participation in rural organizations (ROs), such as associations and cooperatives. According to the 2017 Agricultural Census, among female managers of family farming units in the Project area, 178 were members of cooperatives (0.7%) and, among men, 899 (0.8%). In addition to more limited participation, women generally do not have an equal voice because they are not equally represented in positions of power within the FOs (farmers organizations).

Rural women in the Project area also suffer from double working hours and a workload that exceeds that of men, including a higher proportion of unpaid domestic responsibilities related to preparing food and collecting firewood and water⁷. In Brazil, women work an average of 7.5 hours more per week than men. They are also more vulnerable than men to environmental and climate challenges because of their social roles, for example as the main collectors of water, food, and firewood in a context where increasing pressure on natural resources and environmental degradation are negatively affecting water and food supplies, because of the discrimination they suffer and their poverty rates⁸.

Violence in rural areas is increasing every year, as shown by the growing number of murders of rural workers. The number of conflicts in rural areas has increased from 804 cases in 2013 to 1,500 in 2022; in 2022 alone, 47 murders were recorded, compared to 35 in 2013⁹. Domestic violence is also dramatic in rural areas and the number of murders of women (femicides) has increased. IPEA data for Ceará indicates a femicide mortality rate of 10.2 women per 100,000 in 2018, the second highest rate in Brazil¹⁰. In Ceará, the rates of violence show that women of African descent suffer much more physical and psychological violence than non-African descent women. They are also the biggest victims of femicide, suffering femicide rates four times higher than white women¹¹. The lack of facilities in the Network for Combating Violence against Women makes rural women more vulnerable to violence and restricts their access to protection.

Programs and public policies aimed at gender equality and women's empowerment

The National Plan of Policies for Women (PNPM): is organized into 11 axes that represent priority themes and areas of concern raised by women at the National Conferences of Policies for Women:

- I. Economic autonomy and equality in the world of inclusion;
- II. Inclusive, non-sexist, non-racist, non-homophobic and non-lesbophobic education
Women's health, sexual rights, and reproductive rights;

⁷ FAO. The role of women in Agriculture. ESA Working Paper No. 11-02, March 2021. <https://www.fao.org/3/am307e/am307e00.pdf>.

⁸ UN Women Watch. Rural Women. Overview: Climate Change. <https://www.un.org/womenwatch/feature/ruralwomen/overview-climate-change.html#:~:text=Rural%20women%20are%20disproportionately%20impacted%20by%20climate%20change,sustainable%20development%20and%20effective%20responses%20to%20climate%20change>.

⁹ CPT. Conflicts in Rural Areas of Brazil 2022. <https://cptnacional.org.br/publicacoes-2/destaque/6354-conflitos-no-campo-brasil-2022>.

¹⁰ IPEA (2020). Atlas of Violence. Available at: <https://forumseguranca.org.br/wp-content/uploads/2020/08/atlas-da-violencia-2020.pdf>.

¹¹ It should also be borne in mind that female homicide rates are underreported. Source: <https://portal.fiocruz.br/noticia/homicidios-de-mulheres-no-brasil-aumentam-3146-em-quase-quatro-decadas>.

IV. Combat all forms of violence against women,
V. Women's participation in power and decision-making;
VI. Sustainable development in the countryside, the city, and the forest, guaranteeing environmental justice, food sovereignty and food security;
VII. the right to land, decent housing, and social infrastructure in rural and urban areas, considering traditional communities;
VIII. Equal culture, democratic and non-discriminatory communication, and media;
IX. Combating racism, sexism, and lesbophobia;
X. Combat generational inequalities affecting women, with special attention to young and elderly women;
Management and monitoring of the plan.

Pronaf Women: supports agricultural and non-agricultural activities through a specific line of credit aimed at rural women, with easy payment conditions.

The **National Policy to Combat Violence against Women:** aims to establish concepts, principles, guidelines, and actions to prevent and combat violence against women, as well as to assist and guarantee the rights of women in situations of violence, in accordance with international human rights standards and instruments and national legislation.

The Program for the Defense of the Rights of Young Women Vulnerable to Sexual Abuse and Exploitation in Brazil: is part of the Program for the Defense of the Rights of Children and Adolescents and aims to promote the rights of girls, especially those at risk, to eliminate violence against them.

The Rural Women's Productive and Economic Organization Program: establishes the integration of public policies aimed at the qualification of productive and economic processes and the production of healthy food.

The National Program for Citizenship and Living Well: one of its main actions is the Rural Workers' Documentation Workshops, which aim to raise awareness about the usefulness of civil and labor documentation, as well as providing guidance on access to public policies for women in agrarian reform and family farming and social security, issuing civil and labor documents and access to social security rights free of charge.

Productive Backyard Program: which aims to promote food and nutritional security and the economic autonomy of rural women. Initially, 10,000 productive backyard gardens will be created, benefiting thousands of women through access to the inputs, equipment and tools needed to structure and manage the gardens. The action consists of associating backyard gardens with development, technical assistance, cisterns, and marketing. By 2026, there will be 90,000 productive backyard gardens throughout Brazil. The action involves the Ministry of Agrarian Development (MDA), the Ministry of Development and Social Assistance, Family and Fight against Hunger (MDS) and the BNDES.

Ceará for Women Program: An articulation program of the State Government, in partnership with the municipalities, for the implementation and strengthening of public policies for women, with the aim of promoting inter-institutional integration for

the articulated development of strategies aimed at the implementation and expansion of these policies in the municipalities of Ceará through unified guidelines. It has three axes: i) **Safe woman** - to strengthen public services aimed at preventing and confronting violence against women in the municipalities; ii) **Leading woman** - promoting women's leading role, with gender equity, through actions, programs, legislation and other initiatives that confront all forms of social, economic, institutional and/or political discrimination; iii) **Enterprising woman** - developing women's economic autonomy, enabling the strengthening of female entrepreneurship, opportunities for training and professional qualification, access to the job market and guidance on microcredit.

Ceará Credi: a program aimed at entrepreneurs who carry out or seek to carry out productive activities to generate income, involving production, commerce, and all types of services, with an emphasis on young people, women, and people on low incomes, whether in urban or rural areas.

Strategic transformation paths

The Paulo Freire II Project will take an integrated approach to transforming gender relations by acting on the environmental, economic, and cultural causes that generate social vulnerability among rural women. This perspective aims to transform unequal power relations shaped by patriarchal structures, norms, and practices and to strengthen women's capacities by expanding their decision-making spaces in the family and social spheres. In line with IFAD's Gender Equality and Women's Empowerment (GEWE) strategy, the Project will: i) promote economic empowerment through equal access to and control over key resources and assets, promoting access to public policies, social technologies and productive infrastructure that prioritize agroecological practices and sustainability; ii) improve women's capacities so that they can occupy decision-making spaces of power in rural institutions and organizations; iii) promote actions for the fair sexual division of labor in the rural context.

Through gender sensitization workshops, PPF II will work on important concepts in the formation of structural inequality in the country, with an emphasis on intersectional discrimination.¹² The actions of the three strategic trajectories, detailed in the table below, will highlight women's contributions, acting as important tools in restoring self-esteem and recognizing women's work in the Brazilian semi-arid region beyond the domestic sphere, highlighting patriarchal values that place women only as guardians of the home, in a position of subalternity. By having a positive impact on the lives of women, especially rural family farmers, quilombolas and indigenous people, PPF II is having an impact on changing the structure of society, since these target groups form the base of the social pyramid.

¹² Race, gender and class are considered axes of subordination, social constructions that influence culture, values and hierarchical relations, acting simultaneously in the social and economic configuration of the country. The analysis is intersectional, as coined by Kimberlé Crenshaw, 1989. An analysis that considers the various markers in the configuration of inequality is important. A hierarchy of oppressions is unfeasible, which is why the intersection of race, class and gender is fundamental to making a new model of society viable. In this sense, we also articulate the teachings of Angela Davis, 1997, who considers that race, gender and class inform and influence each other simultaneously. There is no greater degree of relevance between one and the other in the formation of social inequalities.

Objectives, Activities, Monitoring and Evaluation (M&E)

General Objective	Increase the impact of PPF II on gender equality and women's empowerment in the semiarid region of Ceará.		
Objective	At least 50% of the Project's total beneficiaries are women (around 31,000 female-headed households).		
Specific objectives	Economic empowerment	Decision-making and representation	Balancing the workload
Activities	<ul style="list-style-type: none"> - Increasing women's access to and control over key tangible and intangible goods and resources - inputs, technologies, knowledge, capital, and services - such as rural extension, training, credit, and support for entrepreneurship. - Encouraging agricultural production adapted to women through qualified technical assistance combined with feminist popular education practices. - Creating new spaces/opportunities for market access and supporting women's economic participation. Supporting access to public procurement programs such as PNAE and PAA, as well as non-governmental markets such as fairs. - Sensitize men to support women's economic involvement. 	<ul style="list-style-type: none"> - All Technical Assistance teams will be trained in gender issues, and cross-cutting gender training modules will be offered to beneficiaries in all the communities served. - Ensuring the participation of rural women in socio-economic planning (addressing specific issues demanded by women during participatory planning) - Promote greater participation in decision-making spaces by women in rural organizations through dialogue and training in feminism, associativism, women's rights, leadership, and ways of accessing public policies for rural women. - Gender strategy and action plan with participation quotas for women. - Ensure the participation of technical assistance institutions experienced in 	<ul style="list-style-type: none"> - Installation of social technologies for access to water, support for agricultural production and family infrastructure (cisterns, grey water reuse systems, sanitary modules, eco-efficient stoves, biodigesters), to reduce women's workload. - Communication interventions to change gender behavior in relation to the fair division of labor. - Involve men and women in family nutrition through nutrition-sensitive interventions and technical assistance that promotes basic nutrition, balanced diets, and proper food management. - Promote a campaign on the fair division of labor.

	<p>- The agroecological report cards will be implemented as a unique methodological tool to measure, value, and give visibility to women's fundamental contributions to the family economy, as well as to community development, promoting women's self-esteem and demonstrating how they contribute to healthy, diverse and safe family food.</p> <p>- Support for the implementation of AFSs and agroecological backyards led by women.</p>	<p>gender, feminism, family farming and agroecology.</p> <p>- Technical advice provided by a team, preferably made up of women.</p> <p>- Support the Gender Commission.</p>	
<p>Political engagement and raising awareness about gender-based violence.</p>			
<p>M&A</p>	<ul style="list-style-type: none"> • Data broken down by gender. • Outreach indicator: people receiving services promoted or supported by the Project (broken down by gender, young people, and traditional communities). • COI 1.1.4 People trained in productive practices and/or technologies (disaggregated by gender and youth). • COI 2.2.1 People with new jobs/work opportunities (disaggregated by gender and youth). • COI 3.1.3 People accessing technologies that sequester carbon or reduce greenhouse gas emissions (disaggregated by gender and youth) • IE 2.1 People demonstrating improved empowerment (disaggregated by gender and youth). • Environmental and climate education courses with a gender focus in rural schools. 		

Target subgroups

Female-headed households: Female-headed households lag behind their male counterparts in access to and ownership of most of the inputs, goods, and services relevant to productive activities in rural areas. The chances of food insecurity are supposedly higher among female-headed households compared to male-headed households in Brazil. According to recent data from Brazil, 63.0% of female-headed households had some degree of food insecurity, and hunger affected 18.8% of them¹³. In comparative terms, hunger affects female-headed households 7.4 percentage points more than male-headed households in the country.

Women from traditional peoples and communities: Indigenous and quilombola women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty, and food insecurity, as well as having even more limited access than other women in the Project area to public health and education policies, among others¹⁴. In addition to being the target of triple discrimination: gender, race, and socioeconomic status, they are also the target groups most vulnerable to climate change. Despite this, women from Traditional Peoples and Communities (PCTs) play a fundamental role in environmental preservation, as guardians of ancestral food and production knowledge and practices.

Young women: Rural girls are often "left behind" because of a triple burden of overlapping challenges: age, socio-economic status, and gender. PPF II activities for young people will aim to reach at least 50% of young women. In addition, special attention will be paid to promoting the self-esteem and self-confidence of this target group, as well as addressing issues such as early pregnancy and gender-based violence.

Faced with this context, and committed to reducing this gap and promoting gender equality, the Project will develop actions aimed at including women, in particular women whose work is made invisible, where families are run by them, indigenous women, quilombolas and young women, guaranteeing a representation of at least 50% of the Project's total beneficiaries (31,000 families with actions focused on women).

Implementation measures

The following measures will be taken to ensure that gender issues are considered in the management of the Project:

- Development of a gender strategy and action plan for the Project (based on a specific study to be carried out at the start of implementation - baseline).
- Setting targets for women as a percentage of beneficiaries: 50% of the total beneficiary public will be women.
- Allocation of budget for specific gender-related activities, such as agroecological booklets, training on feminism and women's rights, communication interventions to change gender behaviors, among others.
- One person from the Project management team (gender and PCTs specialist) will be responsible for gender and social inclusion issues (overseeing the implementation of the gender strategy, training staff, and helping colleagues to address gender equality and women's empowerment issues in their operations, including knowledge management, M&E indicators and measuring results). The ToR of the Gender and PCTs specialist has been included in the PIM.

¹³ PENSSAN, 2022.

¹⁴ UN WOMEN, 2021.

- Responsibility for gender integration will be included in the terms of reference of all key Project staff.
- Responsibility for gender integration will be included in the terms of reference of service providers.
- In all its activities, IFAD's policy on preventing and combating sexual harassment, sexual exploitation and sexual abuse (SEA), as well as the federal legislation and regulations related to the subject, including the typification in the Penal Code for sexual harassment and the Code of Professional Ethics for Civil Servants of the Federal Executive Branch, will be complied with. This will be reflected in the terms of reference of all the Project's key employees and service providers. In all agreements and contracts within the framework of IFAD-funded projects, whether by Project staff, contractors, suppliers and other third parties, they must immediately report incidents related to sexual harassment, exploitation and abuse (SEA) in IFAD-funded activities or operations to the competent authorities in the country, as provided for in national legislation. More details can be found in the Procurement and Contract Management section of this Manual.
- Sex-disaggregated data will be collected and analyzed. In the event of low involvement of women in the Pproject or unqualified participation, corrective action will be taken.
- The studies carried out by the Project will include a gender perspective.
- Technical Advisory (TA) teams must be made up of at least 30% women and there will be an incentive for companies to increase this percentage even further.

Budget:

In subcomponent 1.3 of the Project, a budget line has been set aside for the preparation and implementation of the Gender Plan, which will include the various cross-cutting activities envisaged in the implementation of the Project's Gender Strategy, such as the implementation of agroecological booklets, gender training for beneficiaries, childcare activities that enable women to participate in Project activities, support for the Gender Commission, among others. **EUR 975,000** has been allocated to the Gender Plan or BRL **4,875,000**.

Nutrition Strategy

Context

The nutrition activities of PFF II are based, like the rest of the Project, on the results of PFF I, and are defined from the context of Ceará. Currently, more than 1.1 million people live in poverty or extreme poverty in the PFF II area and food insecurity has increased significantly following the political-economic crisis and the Covid-19 health crisis. 2.4 million people suffered from hunger in 2022 in the state of Ceará (PENSAAN, 2022). As in the rest of the country, overweight and obesity are increasingly affecting adults and children, with a prevalence of obesity of 28.2% in women over 18 and 21% in men at national level, while overweight affects more than 70% of the adult population between the ages of 40 and 59. The main causes include lack of income and the high cost of healthy food (unaffordable for 48 million people in 2021, according to the SOFI report for 2023), but also the greater availability of ultra-processed foods and a more sedentary lifestyle.

Despite public policy efforts to encourage appropriate breastfeeding practices, the prevalence of exclusive breastfeeding remains low, at 45.8% nationally. This inadequate practice has negative long-term repercussions for health, including an increased risk of obesity and overweight during childhood and adolescence, but also micronutrient deficiencies and reduced protection against certain diseases (pneumonia, chronic diarrhea, for example). Micronutrient deficiencies, diseases and inadequate care practices lead to stunting, which still affected 8.2% of children in the Ceará region in 2017 (Hermano, Rocha, 2022).

Programs and public policies aimed at food and nutritional security

The National Food and Nutrition Security Policy (PNSAN): its priority objective is the realization of a basic human right, which includes the implementation of biologically and socio-culturally appropriate food practices and the sustainable use of the environment.

The Food Acquisition Program (PAA): includes the acquisition of agricultural products from family farming, distribution to people in situations of food insecurity and the formation of strategic stocks. Traditional quilombola communities and other social groups of African descent, identified as family farmers, can participate in the PAA, which includes specific targets for quilombola communities.

The School Feeding Program (PNAE) is a strategy to promote Food and Nutrition Security (SAN) for public school students and a public procurement program that encourages the local purchase of food from family farming (minimum 30% of FNDE resources) and prioritizes agrarian reform settlements, indigenous communities and quilombolas. There is a historical demand from the quilombola movement organizations for food for public schools and their students that is in line with the customs, diet, ways of life and production of the communities.

Bolsa Família: a very well targeted conditional cash transfer program, which has shown good results.

Food Guidelines for the Brazilian Population (Ministry of Health - MoH, 2015) and Food Guide for the Brazilian Population (MoH, 2019): present a set of information, analyses, recommendations and guidelines on the choice, combination, preparation, and consumption of food aimed at promoting the health of individuals, families and communities and Brazilian society as a whole.

The **Brazil Without Hunger Plan (2023):** There are 80 actions and programs, with more than 100 goals proposed by the 24 Ministries that make up the Interministerial Chamber for Food and Nutritional Security - CAISAN, organized into 3 axes: Access to income, poverty reduction and promotion of citizenship; Adequate and healthy food, from production to consumption; Mobilization to combat hunger.

The National Program to Strengthen Family Farming (PRONAF): grants subsidized credit for the cost of cultivation, agro-industrial activity or investment in machinery, equipment, or infrastructure for agricultural or non-agricultural production and services. PRONAF has specific credit lines for young people, women, agroecology, the semi-arid region, bioeconomy, agroindustry, among others.

The **"Mais Nutrição" (More Nutrition) program** in the state of Ceará aims to combat hunger and food waste by serving people living in extreme poverty. The program is linked to the Social Protection Secretariat through the Mais Infância Ceará Program. As such, the program enables the distribution of fresh, healthy food to children, on canteen tables and to families.

The **"Ceará sem Fome" (Ceará without Hunger)** program (created by law 18.312 of February 17, 2023) is a permanent program of the Government of Ceará, which allows people in extreme poverty to have access to healthy food. The actions are carried out by the Secretariat for Social Protection and the Secretariat for Agrarian Development, with the support of state and municipal bodies, society and the private sector, and networks of social units producing meals that distribute ready meals five days a week throughout the state. It aims to distribute food from family farms to people who do not have access to healthy, nutritious food.

Ceará's food and nutrition security policy (Law No. 15.002 of 2011): Ceará's Food and Nutrition Security System, establishing the obligations and responsibilities of the public administration to guarantee Food Sovereignty and the Human Right to Adequate Food, ensuring the participation of organized civil society in the formulation of policies, plans, programs, and actions aimed at Food and Nutrition Security.

The main national priorities for achieving a sustainable food system by 2030 include:

- Support small-scale and family farming to promote sustainable livelihoods and food diversification;
- Encourage greater integration of agrobiodiversity in food systems, also promoting biodiversity in production chains;
- Ensuring safe, healthy, and nutritious food for all; and
- Promote healthy and nutritious diets. In particular, continue to promote breastfeeding and healthy eating for children under two and implement evidence-based dietary guidelines.

Strategy objectives

The Project's activities aim to respond to these challenges, focusing on i) family agricultural production, in particular with support for agroecological gardens, the valorization of non-conventional food plants (PANCs) and support for access to water. This will aim to increase the availability of food for the most vulnerable families, increase the availability of water for human consumption and thus improve their food and nutritional security, while also limiting the diseases responsible for poor absorption of micronutrients ii) raising awareness of good nutrition and health practices (reproductive health, maternal health and child health), to improve in particular the nutritional and health status of women and children iii) raising awareness of food culture, a healthy diet which includes in particular the Unconventional Food Plants (UFP) of the target territories, and iv) training vulnerable communities in the processing of healthy local products in order to increase their daily consumption in a sustainable way and foster the empowerment of vulnerable communities.

The expected **results are:**

- i) Improving food and nutrition security in the target group
- ii) Limiting the risk of water-related diseases or food safety
- iii) The adoption of better care and nutrition practices for mothers and children
- iv) Valuing PANCs and increasing their consumption in the daily diet
- v) Promoting food culture and gastronomy in communities that have little access to it, in order to encourage interest in nutrition and diversification of diets.
- vi) Support initiatives to transform nutritious food to empower women, young people and PCTs and to value the cultural food heritage of the territories.

Objectives, Activities, Monitoring and Evaluation (M&E)

General Objective	Improve diet quality, nutritional status and increase the adoption of healthy practices among families in Ceará.			
Objective	80,000 families benefit directly from nutrition-sensitive interventions.			
Specific objectives	Increased availability and access to nutritious and safe food	Greater knowledge of nutrition and health needs	Sustainable management of natural resources and resilience to climate change	Empowerment of women, young people and community and traditional peoples
Activities	<ul style="list-style-type: none"> - Increase the production of nutrient-rich crops and diversify the production of nutritious food for self-consumption (agroecological gardens, family farming) - Integrate the use of neglected and underutilized species (NUS/PANCs) rich in nutrients and resilient to climate change in productive agroecological backyards and promote awareness campaigns on the value of NUS promoted by the Project. - Promoting appropriate practices for processing, storing, and preserving local foods with the 	<ul style="list-style-type: none"> - Design and propose training adapted to the needs of women, young people, PCTs and men from vulnerable communities (food insecurity): food culture, nutritional needs (particularly of mothers and children in the first 1000 days of life), healthy eating and living habits, the role of native plants for nutrition and the environment. Propose nutritional education (food safety, food culture, gastronomy, health, and nutrition) in schools and try to incorporate nutrition into school curricula. - Train TA staff in nutrition-related topics. 	<ul style="list-style-type: none"> - Promoting practices that are resilient to climate change and the sustainable management of natural resources (soil, composting, etc.). - Increasing access to drinking water - Implementing social technologies to improve water management for food production (cisterns). - Diversifying and enriching production systems - Voice and effective participation in environmental planning and natural resource management. 	<ul style="list-style-type: none"> - To train women, young people and PCTs in the transformation and valorization of nutritious food products from the territory. - Raising awareness of nutritional needs and appropriate practices to maintain the health of mothers and adolescents. - Informing about culture and food sovereignty Supporting the voice and decision-making power of women in families, rural organizations, and the community. - Raising awareness of issues related to gender equality and nutrition (early pregnancy, sexual and reproductive health).

	<p>potential to improve the micronutrient profile of diets.</p> <ul style="list-style-type: none"> - Promoting social technologies for access to water to increase the availability of water for human consumption and production throughout the year. 	<ul style="list-style-type: none"> - Valuing and increasing the dissemination of relevant traditional knowledge related to nutrition. - Communication and knowledge management: evaluating the results of activities and documenting changes in behavior in relation to nutrition and health. 		
M&A	<p>COI 1.1.8: Families receiving targeted support to improve their nutrition (by gender, youth, and traditional communities).</p> <p>COI 1.2.8: Women (15-49 years) who reported Minimal Dietary Diversity (MDD-W) (number and % of women).</p>			

Implementation measures

The following implementing measures will be taken to ensure special attention to nutrition:

- Develop a detailed nutrition strategy with an integrated approach that includes gender, race/ethnicity, youth, and climate resilience for the Project, specifying the activities and methodologies that will be adopted to achieve the nutrition results based on the pathways identified in the Project and on a study carried out at the beginning of the Project (baseline).
- Ensure that all the Project's priority groups, including women, young people, indigenous peoples, and members of traditional communities, take part in training processes on nutrition.
- Ensure that the Project team is trained in issues related to nutrition and the Project's integrated approach.
- Ensure that technical advisory teams are trained in nutrition-related issues, including the specific nutritional problems of women and the influence of socio-cultural aspects in the case of indigenous peoples and traditional communities.
- Budget allocation for specific nutrition-related activities, including training for Project staff and partners.
- Recruitment of a full-time nutrition specialist in the Project Management Unit team (to oversee the implementation of the nutrition strategy, build team capacity and help colleagues integrate nutrition considerations into their operations, including knowledge management and performance measurement and evaluation). The Nutrition Specialist's ToR is included in the PIM.
- Specific nutrition indicators will be monitored, and the data will be analyzed regularly.
- The studies conducted by the Project and the knowledge management products developed will include a nutritional perspective.

Budget

Under subcomponent 1.3 of the Project, a budget line has been set aside for the preparation and implementation of the Nutrition Plan, which will include the various cross-cutting activities envisaged in the implementation of the Project's Nutrition Strategy, such as nutrition education to improve nutrition and maternal and child health in the Project's most vulnerable communities, training in food culture and food processing to enhance local products with a view to improving nutrition and facilitating the empowerment of women and young people, and raising awareness of health and food culture among elementary school pupils. **EUR 507,000** has been allocated to the Nutrition Plan or **BRL 2,535,000**.

Youth Strategy

Background:

In the Project area, there are 502,541 young people (aged 15 to 29), representing 23.7% of the total population. Among these young people, 49% are women (295,296 people)¹⁵. The main challenges faced by rural youth in the Project area are: i) lack of employment and income opportunities (with little diversification of agricultural and non-agricultural activities that attract young people), ii) lack of access to and control over resources, inputs, goods and technologies, iii) limited access to public policies and services and iv) low participation and decision-making power in rural and community organizations.

Around 25% of young people in Ceará are considered vulnerable to poverty because they neither study nor work, the majority being black men and women¹⁶. Young women of African descent have a higher percentage of being out of school and the job market. The precarious living conditions and limited opportunities for sustainable study and work in the semi-arid region of Ceará have led rural youth to migrate to urban areas, especially young women with more schooling, a process that is reflected in the increase in the proportion of men (masculinization) and the ageing of the rural population, which challenges family succession. The phenomenon of young women being the ones who leave rural areas the most is also related to their refusal to take on the same roles played by their mothers and grandmothers in the family production unit¹⁷. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of family farming units in the semi-arid region of Ceará under the age of 35¹⁸ fell by 9.7%. The lack of public policies aimed at the demands and needs of rural youth is also among the main causes of young people emigrating from Ceará.

For young people in the Project area who want to stay in family farming, the factors that influence them are financial resources and access to training, the appreciation of the rural lifestyle, the availability of services and the conditions that can offer the possibility of success in agricultural production¹⁹. However, in the Project area, only 11.7% of family farms are managed by young people under 35 and only 10% of young people under 35 have access to technical assistance, as well as extremely limited access to credit²⁰. The modernization of agriculture, which is a fundamental means of increasing income, reducing production costs through the use of more efficient technologies and greater access to new and differentiated markets, is a strategy that can contribute to the revaluation of the rural productive space by young people.

Regarding child labor, in Ceará in 2019, 82,264 children and adolescents aged 5 to 17 were in child labor, which was equivalent to 4.7% of all children and adolescents

¹⁵ IBGE (2022). Demographic Census.

¹⁶ IBGE (2022b). Synthesis of Social Indicators, 2022. <https://biblioteca.ibge.gov.br/visualizacao/livros/liv101979.pdf>.

¹⁷ SILVA, Luciana Porto da. "Female youth in the rural Northeast: an analysis of the process of permanence based on the Census (1980-2010) and Pnad (1992-2015)." (2018). Available at: https://repositorio.unb.br/bitstream/10482/32747/1/2018_LucianaPortodaSilva.pdf.

¹⁸ Although young people in Brazil are defined as those aged between 15 and 29, the Agricultural Census does not have data for this group; the closest age group in the database is people under 35.

¹⁹ LIMA, S.M.V. Juventude Rural e as Políticas e Programas de Acesso à Terra no Brasil: Recomendações para Políticas de Desenvolvimento para o Jovem Rural. Brasília: MDA, 2013.

²⁰ Pronaf Jovem was created with the aim of encouraging young people to stay in rural areas. However, this funding has not materialized in practice, as evidenced by the fact that, between 2016-2019, only 240 Pronaf Jovem contracts were signed in the entire Northeast region. Source: Public Policy Monitoring and Evaluation Council. Evaluation Report: National Program for Strengthening Family Farming, 2020. Available at: <https://www.gov.br/economia/pt-br/aceso-a-informacao/participacao-social/conselhos-e-orqaos-colegiados/cmap/politicas/2020/subsidios/relatorio-de-avaliacao-cmas-2020-pronaf>.

in the state²¹. Children and adolescents working in Ceará dedicated 15.7 hours of their time to work activities in 2019.

Programs and public policies aimed at young people

The **National Youth Inclusion Program (ProJovem)**: its mission is to raise the educational level of young people between the ages of 18 and 29 who, despite being literate, have not yet completed elementary school. This commitment is materialized through the Youth and Adult Education (EJA) modality, which integrates professional skills and civic involvement". The "Campo" program is aimed at young farmers who have been excluded from the formal education system. It lasts 24 months and integrates Youth and Adult Education (EJA) with social and professional skills, strengthening the agricultural base.

PRONAF Youth: supports agricultural and non-agricultural activities, through a specific line of credit aimed at young rural people, with easy payment conditions.

The **National Agrarian Reform Education Program (PRONERA)**: presents and supports educational projects aimed at developing agrarian reform areas. The public policy is aimed at young people and adults living in settlements created or recognized by INCRA, quilombolas, teachers and educators who carry out educational activities aimed at beneficiary families, as well as people assisted by the National Land Credit Program (PNCF).

The "Youth Land" line of the National Land Credit Program (PNCF) - offers subsidized credit for the acquisition of land by rural workers under the age of 30.

National Plan for Youth and Rural Succession (2016) - the plan integrated actions from different ministries in the following areas: Land and Territory; Work and Income; Rural Education; Quality of Life; Participation, Communication and Democracy. The Plan is being reconstructed using a participatory dialogue methodology with organizations representing rural youth.

The **Young Entrepreneur Program** was designed to provide professional training and subsequent financing for young people at the technical level who were graduating or had recently graduated, were aged between 18 and 29 and were interested in running their own business. It had a regional focus, limited to the areas where Banco Nordeste operates (northern Espírito Santo, Minas Gerais, and the Northeastern states), which was responsible for its development.

Young Brazil Program, which includes the establishment of Youth Centers and the training of young people between the ages of 15 and 17 as Youth Agents for Social and Human Development through the granting of scholarships.

²¹ Free of Child Labor (2019). Child labor in Ceará. Available at: <https://livredetrabalhoinfantil.org.br/mapa-do-trabalho-infantil/trabalho-infantil-no-ceara/>.

The **Youth Agent Program for Social and Human Development** aims to prepare young people for intergenerational work, training them for the job market and to work in their communities in the areas of health, culture, the environment, citizenship, sport, and tourism.

Through State Law No. 17,383 of January 11, 2021, the Environmental **Youth Program (AJA)**, through the Secretariat of the Environment - SEMA, aims to select 10,000 young people in situations of social vulnerability, living in the 184 municipalities of Ceará (urban and rural), to work on socio-environmental projects.

Young people aged between 15 (fifteen) and 29 (twenty-nine) who are enrolled in or have completed high school in a public school in the state of Ceará and are members of families registered with the Cadastro Único para Programas Sociais - CadÚnico (Single Registry for Social Programs) can take part. Benefits: Monthly allowance of R\$ 200.00, Training course, Uniforms
Accident insurance and certificates.

Rural Agent Program, LAW No. 15.170, OF 18/06/12. The Rural Agent Program is established, through which the State, through the Technical Assistance and Rural Extension Company - EMATERCE, can provide technical assistance and rural extension to family farmers, with a view to improving agricultural productivity rates in Ceará. The purpose of the Rural Agent Program is to provide an educational and systematic process, with scientific methodology, of cultivation techniques and rational production of existing potential, for the rational exploitation of crops and livestock, with greater profitability, with a view to increasing income and employment in rural areas.

São José Jovem (São José Youth Project): Law No. 18.065 regulates on May 17, 2022, which provides for specific action to support rural youth, within the scope of the secretariat for agrarian development - SDA, provided for in international loan agreement No. 8986-Br. The financing of projects referred to in the heading of this article is a goal established in Loan Agreement No. 8986-BR. The objectives of the action are: I - to promote the economic and social autonomy of family-based Rural Youth; II - to develop entrepreneurship and market skills, in order to strengthen and expand marketing channels; III - to qualify in management and technological innovation; IV - to promote the participation of rural youth as protagonists in the process of affirming the permanence of young people in the countryside/rural succession; V - contributing to the implementation of good production practices, increasing climate resilience and strengthening healthier and more sustainable food systems, with particular regard to agroecological practices, administration with an emphasis on social organizations, and community tourism; VI - supporting family-based rural youth in initiatives that enable the continuous generation of income for rural youth. Art. 2 The target audience for this Decree is rural youth in the state of Ceará aged between 18 and 29.

Ceará Credi: a program aimed at entrepreneurs who carry out or seek to carry out productive activities to generate income, involving production, commerce, and all types of services, with an emphasis on young people, women, and people with low incomes, whether in urban or rural areas.

Strategic transformation paths

For young people, PPF II will adopt an inclusive approach that focuses on the economic, political, and cultural causes of the vulnerability of different subgroups of young people. It will support the adoption of practices, approaches and techniques that encourage the sustainable use and management of natural resources, promoting the formation of spaces for the participation of rural youth, in all their multiplicity, and enabling them to expand their power of agency and become agents of development in their communities.

In line with IFAD's Strategic Framework 2016-2025 and the Rural Youth Action Plan (RYAP), the Project will: i) promote economic empowerment through access to and control over key productive factors, especially assets, services and relevant skills, and ii) improve capacities for young people to act in decision-making spaces of political and social representation (communities and institutions, rural movements and organizations).

Objectives, Activities, Monitoring and Evaluation

General Objective	Increase the impact of PPF II on the social, economic, and political empowerment of rural youth in the semi-arid region of Ceará.	
Objective	At least 15% of the beneficiaries are young people (50% of whom are young women).	
Specific objectives	Economic empowerment	Decision-making and representation
Activities	<ul style="list-style-type: none"> - Vocational training in agricultural and non-agricultural activities that interest young people. - Promoting the socio-economic empowerment of young people through productive/business plans. - Support for the implementation of AFSs and agroecological backyards led by young people. - Support for young people's entrepreneurship and innovation in new technologies and software (programs, applications, etc.); - Training for Young People's Communicators in communication techniques, technologies and languages and semi-arid themes - Creating new job and income opportunities for young people. - Opportunities for market access and producer promotion. - Support the involvement of young people in the adoption of technologies and practices, approaches and productive techniques that are resilient to climate change and that also encourage the sustainable use and management of natural resources. 	<ul style="list-style-type: none"> - Youth strategy with participation quotas for young people. - Raising awareness, promoting dialogues and training in associativism/cooperativism and leadership so that young people have greater participation and decision-making power in rural organizations. - Participation of organizations representing rural youth in all stages of the Project. - Promote meetings, exchanges and learning routes to exchange agroecological knowledge and other topics relevant to the Project. - Support and carry out artistic and cultural expression activities for young people in the semi-arid region. - Create opportunities for young people (especially young women) to serve as role models. - Systematization and dissemination of good practices and youth innovations. - Involving young people in participatory planning, design, monitoring and evaluation, as well as Project management.
M&A	<ul style="list-style-type: none"> • Indicators broken down by young people. 	

- Outreach indicator: people receiving services promoted or supported by the Project (broken down by gender, youth, and traditional communities).
- COI 1.1.4 People trained in productive practices and/or technologies (disaggregated by gender and youth).
- COI 2.2.1 People with new jobs/work opportunities (disaggregated by gender and youth).
- COI 3.1.3 People accessing technologies that sequester carbon or reduce greenhouse gas emissions (disaggregated by gender and youth)
- IE 2.1 People demonstrating improved empowerment (disaggregated by gender and youth).

Target subgroups

Youth from indigenous and traditional communities: Indigenous and quilombola youth are among the most marginalized and socially excluded groups, facing higher rates of poverty and food insecurity, and will be prioritized.

Young people from the Family Alternance Training Centers (CEFFAs) and other similar rural education institutions.

LGBTQIAPN+ youth.

Implementation measures

- Development and implementation of a detailed youth strategy and action plan (based on a specific study carried out at the start of implementation - baseline).
- Setting targets for young people as a percentage of beneficiaries. At least 15% of beneficiaries will be young people, 50% of whom will be young women.
- Budget allocation for specific activities related to young people, such as leadership training, training for Young Communicators, exchanges and learning routes between young people, among others.
- Recruitment of a full-time youth specialist by the Project Management Team (to oversee the implementation of the youth strategy, build staff capacity and help colleagues integrate youth inclusion considerations into their operations, including knowledge management and measuring results). The ToR of the Youth Specialist has been included in the Project Implementation Manual - PIM.
- Technical advisory teams must be made up of at least 30% young people. There will be an incentive for young people trained in CEFFAs and similar to be hired by entities providing ATER and other types of technical assistance to the communities benefiting from the Project.
- Data disaggregated by age will be collected and analyzed.
- The studies carried out by the Project and the Knowledge Management (KM) products produced will include a generational perspective.

Budget

Under subcomponent 1.3 of the Project, a budget line has been set aside for the preparation and implementation of the Youth Plan, which will include the various cross-cutting activities envisaged in the implementation of the Project's Youth Strategy, such as youth festivals and caravans, vocational training in agricultural and non-agricultural activities, the training of Youth Communicators, and the training of youth leaders, among others. **EUR 507,000** has been allocated to the Youth Plan or **BRL 2,535,000**.

Strategy for the inclusion of indigenous peoples and traditional communities

Background:

Indigenous Peoples and Traditional Communities (PCTs)²² in the Project area are affected by the combined effects of various forms of discrimination, by gender, race, and socio-economic conditions. PCTs are particularly vulnerable due to historical structures of exclusion, high dependence on natural and ecosystem resources affected by mismanagement, climate change, marginalization of their ways of life and exclusion from public policy formulation. As a result, they face even greater obstacles to participating in decisions affecting their territories and to the full realization of their civil and human rights, with significant inclusion gaps in terms of poverty, access to basic services such as health and education, technical assistance, land, water, and sanitation. PCT women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty, and food insecurity, as well as more limited access than other women to public health and education policies, among others. They are also the target groups most vulnerable to climate change.

Indigenous peoples. The 2022 Demographic Census recognized just over 56,000 indigenous people in the state of Ceará, while the previous one, from 2010, counted around 19,300 indigenous people living inside and outside of Indigenous Lands (TIs). Ceará is currently the ninth state in Brazil with the largest indigenous population. The state is following the national trend of an increase in the indigenous population. The Census data also shows the municipalities where there were the most indigenous people in absolute numbers, with the municipalities of Caucaia (17,628 indigenous people) and Itarema (5,115 indigenous people) in the top positions.

In Ceará, there are currently 30 Indigenous Lands (TIs), occupying an area of approximately 22,330 hectares and with a population of around 23,000 inhabitants (MPF, 2022). Among them, the largest is the Tapeba Indigenous Land, with approximately 5,838 hectares and a population of 6,552 people²³. The indigenous peoples of the Caatinga generally live in small areas and suffer intense pressures that cause serious social, environmental, and climatic vulnerability.

In the rural area covered by the Project, there are 10,266 indigenous people, 49.7% women and 25.6% young people²⁴. Of the total indigenous population, only 6,842 live in indigenous territories. Among family farmers, the 2017 Agricultural Census indicates that at least 798 are indigenous. Among the indigenous people registered on the Unified Registry in the project area (8,053), 76.6% are living in poverty.

The majority of the indigenous population is facing an accelerated social transformation and needs to seek its physical and cultural survival and guarantee a better quality of life for current and future generations. It is estimated that in Brazil, less than 5% of young rural indigenous people aged between 20 and 29 have 13 or more years of schooling²⁵. In terms of health, infant mortality in the first year of life among indigenous children is three times higher than the national average. Between 2018 and 2021, the Special Secretariat for Indigenous Health (SESAI) recorded 3,126

²² Traditional peoples and communities are culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition (item I Art. 3 Decree 6.040 / 2007).

²³ MPF (2020). Indigenous Lands Table. Available at: <https://www.mpf.mp.br/atuacao-tematica/ccr6/documentos-e-publicacoes/tabela-terras-indigenas-2020/tabela-terras-indigenas-2020.pdf>.

²⁴ IBGE (2022). Demographic Census.

²⁵ ECLAC (2016). The matrix of social inequality in Latin America. Available at: <https://www.cepal.org/es/publicaciones/40668-la-matriz-la-desigualdad-social-america-latina>.

deaths of indigenous children aged 0 to 5, mainly due to preventable and treatable diseases such as diarrhea and malnutrition. 72% of the deaths were of children under 1 year old. The precarious situation of indigenous children is evident in the fact that anemia affects 50% of them.

*Quilombolas*²⁶. The 2022 Demographic Census indicates that there are 10,437 quilombolas in the Project area, of which only 2,033 live in quilombola territories. In the Project area, there are 34 Remaining Quilombo Communities (CRQ) certified by the Palmares Cultural Foundation, distributed in 15 municipalities^{27 28}. Among the quilombolas registered in the Single Registry in the Project area (3,433), 71.9% are in poverty or²⁹. Their main economic activities are based on subsistence farming associated with collection of non-timber forest products and artisanal fishing. Quilombola identity is strictly associated with belonging to the collective territory in which they live. Like other traditional communities, they make common use of natural resources and their relationship with the environment is based on differentiated cultural practices. Although the 1988 Brazilian Constitution recognizes the CRQ as legal holders of the right to the land they have historically occupied, the process of recognizing and regularizing quilombola territories is still challenging and these communities often suffer human rights violations, having historically been subjected to a process of expropriation of their territories. The Quilombola Nutrition Call, carried out in 2006, found that 15% of children under the age of 5 were short for their age, expressing severe malnutrition. Regarding access to public infrastructure, 11% of the quilombola communities surveyed did not have a Community Health Agent, 38% did not have a Family Health Establishment (PSF). Garbage was not collected in 71% of quilombola households and almost half of them (45.8%) had³⁰. Even when there are public health services, their organizational logic disregards the dynamics of the groups³¹.

Artisanal fishers. Artisanal (or small-scale) fishing, carried out by self-employed producers using traditional techniques, is inherited by generations of fishers and plays a fundamental role in biodiversity conservation, food security and poverty eradication. According to data from PNAD 2013, artisanal fishers (self-employed, unpaid and who produce for their own consumption) make up the vast majority of Brazilian fishers (90.3% or 440,266 workers)³². The marginalization suffered by this group in Brazil is evident in the socio-economic indicators available for this population. The majority of artisanal fishers declared that they depended solely on fishing to survive, and the per capita family income of subsistence fishers was less than half the national minimum wage in 2013 (corresponding to 46.6% of it), while that of professional fishers was only slightly higher (equivalent to 59.3% of the minimum wage)³³. Among the artisanal fishers registered in the Single Registry in the project area (3,002), 62.7% are in poverty.

²⁶ Quilombolas are descendants of enslaved people who resisted the slavery regime and have their own identity and cultural values, religious beliefs and means of subsistence.

²⁷ Palmares Cultural Foundation (2023). Quilombola Certification. <https://www.gov.br/palmares/pt-br/departamentos/protacao-preservacao-e-articulacao/certificacao-quilombola>.

²⁸ The municipalities are: Araripe, Caucaia, Coreaú, Crateús, Ipueiras, Itapipoca, Monsenhor Tabosa, Moraújo, Novo Oriente, Pacujá, Potengi, Quixadá, Quixeramobim, Salitre, Tamboril

²⁹ The most recent update of the Cadastro Único (Unified Registry) database no longer allows people living in poverty to be disaggregated from people living in extreme poverty; it merges these two categories.

³⁰ MDS (2006). Quilombola Nutrition Call. <https://fpabramo.org.br/acervosocial/estante/chamada-nutricional-quilombola-2006/>.

³¹ MELO, Williane Ferreira (2017). Quilombola communities and health policies. <https://terradereitos.org.br/acervo/artigos/comunidades-quilombolas-e-politicas-de-saude/22602>.

³² CAMPOS, André Gambier; CHAVES, José Valente (2016). Labor profile of artisanal fishers in Brazil: inputs for the Seguro Defeso Program. *Política em Foco*, 60, April 2016. Available at: http://repositorio.ipea.gov.br/bitstream/11058/10294/6/bmt_60_perfil_laboral.pdf.

³³ Idem.

Other traditional peoples and communities. In addition to indigenous peoples, quilombolas and artisanal fishers, the project area is home to many unidentified traditional and culturally differentiated communities that occupy and use territories and natural resources as a condition for their cultural, social, and economic reproduction, including: terreiro communities, extractivists (non-timber products), riverine communities, gypsies, shellfish gatherers and caboclos. There is often an overlap between these social segments.

Programs and public policies aimed at indigenous peoples and traditional communities

The **National Policy for the Sustainable Development of Traditional Peoples and Communities (PNPCT)**: aims to promote the sustainable development of traditional peoples and communities, with an emphasis on recognizing, strengthening, and guaranteeing their territorial, social, environmental, economic, and cultural rights, respecting and valuing their identity, forms of organization and institutions.

The **National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI)**: its general objective is to guarantee and promote the protection, recovery, conservation and sustainable use of the natural resources of indigenous lands and territories, ensuring the integrity of indigenous heritage, the improvement of quality of life and the full conditions for the physical and cultural reproduction of current and future generations of indigenous peoples, respecting their socio-cultural autonomy.

The **main objective of** the National Policy for the Sustainable Development of Traditional Peoples and Communities is to promote the sustainable development of traditional peoples and communities, with an emphasis on recognizing, strengthening, and guaranteeing their territorial, social, environmental, economic, and cultural rights, respecting and valuing their identity, their forms of organization and their institutions.

Aquilomba Brasil Program - is an expansion of Brasil Quilombola (Decree 6.261, 2007) and consists of a set of intersectoral measures aimed at promoting the rights of the quilombola population, with emphasis on four thematic axes: Access to Land; Infrastructure and Quality of Life; Productive Inclusion and Local Development; Rights and Citizenship.

The **National Policy for the Promotion of Racial Equality (PNPIR)** aims to reduce ethnic inequalities in Brazil, especially among the black population, through programs and projects to be implemented in the long, medium, and short terms. This national policy includes the following management principles: a) transversality, in which various bodies participate in the execution and management of actions to combat racial inequalities; b) decentralized management, in which the federal entities are articulated; c) democratic management, through dialogue with civil society participating in the quilombola struggle.

The "**Quilombolas do Brasil**" and "**Indígenas do Brasil**" stamps are essential tools for identifying the origin of agricultural, craft and food products from quilombola and indigenous communities, and necessary instruments for adding value.

Strategic transformation paths

In line with IFAD's updated Policy on Engagement with Indigenous Peoples 2022, the project will empower indigenous peoples and traditional communities through the following main pathways: i) economic empowerment; ii) decision-making and representation; and iii) sustainable management of natural resources and climate resilience.

Objectives, Activities, Monitoring and Evaluation (M&E)

Assumptions	Traditional peoples and communities are the populations most exposed to environmental degradation and climate change, as their physical and cultural survival is directly linked to maintaining the integrity of their territories and their environmental services.		
General Objective	Increase the impact of the PPF II on the development of the socio-economic, environmental and climate resilience of indigenous peoples and traditional communities.		
Objective	At least 2% of the beneficiaries are indigenous peoples or traditional communities.		
Specific objectives	Economic empowerment	Decision-making and representation	Sustainable management of natural resources and climate resilience
Activities	<ul style="list-style-type: none"> - Provision of technical assistance adapted to the practices of indigenous peoples and traditional communities. - Training TA teams to respect the cultural identity and ways of life of indigenous peoples and traditional communities. - Specialized TA to improve nutrition and food security, greater access to public policies, productivity, and productive diversification. - Training initiatives based on participatory approaches and traditional indigenous knowledge, skills, culture, and values. - Formative processes in ethnodevelopment and the rights of the PCTs. 	<ul style="list-style-type: none"> - Social inclusion strategy with participation quotas for indigenous peoples and peoples from traditional communities. - Guarantee of free, prior, and informed consent. - Ensure representation and participation in political dialog. - Improved access to public policies. - Holding meetings and exchanges between indigenous peoples, quilombolas and other traditional communities on topics of common interest, with a focus on valuing the unique cultural identities of these communities. 	<ul style="list-style-type: none"> - Environmental and land regularization, prioritizing traditional peoples and communities, especially quilombola communities. - Installation of social technologies for access to water, support for agricultural production and family infrastructure (cisterns, gray water reuse systems, sanitary modules, eco-efficient stoves, biodigesters...). - Invest in and support the adoption of agroecological practices that increase the resilience of production

	<ul style="list-style-type: none"> - Promoting ethno-development and access to adapted public policies and productive development - Promote the socio-economic empowerment of the PCTs, respecting their cultural specificities. - Support for access to PNAE, PAA and local non-governmental markets, such as fairs 	<ul style="list-style-type: none"> - Expansion and dissemination of innovations based on indigenous and traditional knowledge. - Participation of the organizations representing the PCTs in all stages of the project. 	<p>systems. The implementation of practices such as the diversification and integration of production systems, the recovery of agrobiodiversity and ecosystem services, soil management and integrated pest management, the use and preparation of biopreparations and the use, conservation and reintroduction of creole seeds and species.</p>
<p>M&A</p>	<ul style="list-style-type: none"> • Indicators broken down by indigenous peoples and traditional communities. • Outreach indicator: people receiving services promoted or supported by the project (broken down by gender, youth, and traditional communities). • COI 1.1.8 Families that have received targeted support to improve their nutrition (disaggregated by gender, youth, and traditional communities). 		

Target subgroups: Young people and women from indigenous and traditional communities.

Implementation measures

The following implementation measures will be taken to ensure the inclusion of traditional communities and indigenous peoples:

- Development of a detailed project strategy and action plan for indigenous peoples and traditional communities (based on a specific study carried out at the start of implementation - baseline).
- The PMU must have a specialist in Gender and PCTs, with exclusive dedication to the project (ToR included in the PIM).
- Definition of targets to reach traditional peoples and communities as a percentage of beneficiaries: 2% of all beneficiaries will be PCTs.
- Allocation of budget for specific activities related to PCTs, such as CLPI a priori and sensitization of technical assistance teams on race and ethnicity, among others.
- Recruitment of a full-time expert on traditional peoples and communities by the project management team (to oversee the implementation of the strategy for PCTs, develop the team's capacity and help colleagues integrate traditional peoples' and communities' inclusion considerations into their operations, including knowledge management and M&E).
- Data disaggregated by indigenous peoples and traditional communities will be collected and analyzed.
- The studies carried out by the project will include a perspective on the inclusion of PCTs.

Strategy for LGBTQIAPN+ inclusion

The lack of government data on the socio-economic and political challenges faced by the LGBTQIAPN+ community is indicative of the statistical invisibility and marginalization of this group. The lack of a social assistance policy, the rural exodus of the LGBTQIAPN+ population to urban centers, the lack of family support, limited access to income and low employability in rural areas, the difficulty of staying in the school environment due to prejudice, especially in relation to the trans population, are some of the factors that keep data on the LGBTQIAPN+ population in rural areas invisible. They are also factors related to the exclusion and victimization of this population.

Brazil is an extremely unsafe country for this population, as indicated by the upward trend in the number of violent deaths of LGBTQIAPN+ people over the last two decades. Between 2000 and 2022, 5,635 (five thousand six hundred and thirty-five) people died as a result of gender prejudice and intolerance. In 2022, there were a total of 273 deaths of LGBTQIAPN+ people, a national average of 1.31 deaths per million people³⁴. The majority of deaths occurred among young people aged between 20 and 29 and the Northeast region had the highest absolute number of violent deaths.

PPF II includes the LGBTQIAPN+ community as one of the project's main target groups, along with rural women, young people and traditional peoples and communities. The project will consider LGBTQIAPN+ diversity, support their inclusion and respect for their rights in the context of the project's work. It will implement IFAD's Diversity, Equity, and Inclusion Strategy (2021). Initially, the project will map LGBTQIAPN+ communities and their social movements and carry out consultations to listen to their needs and research to understand the socio-economic and political challenges they face. **Based on this diagnosis and consultations, the project will define a social inclusion strategy for this group.**

Proposed activities:

- Awareness campaigns on the rights of the LGBTQIAPN+ community and against LGBTphobia;
- Preparation, in partnership with LGBTQIAPN+ movements, of CG products that can support awareness campaigns in schools and rural communities regarding LGBTQIAPN+ rights;
- Promoting consultations and collaboration with rural LGBTQIAPN+ movements, such as the MST's LGBT Working Group;
- Implementation of IFAD's Diversity, Equity, and Inclusion Strategy (2021);
- Diagnosis of the socio-economic and political barriers to inclusion of this group in the state of Ceará, especially in rural areas;
- Drafting and implementing a strategy and action plan for LGBTQIAPN+ inclusion;
- Support for LGBTQIAPN+ movements in the countryside.

³⁴ OBSERVATORY (2022). Observatory of LGBTI+ deaths and violence in Brazil. Dossier 2022: Deaths and violence against LGBTI+ people in Brazil. Available at: Dossier-of-Deaths-and-Violence-Against-LGBTI-People-in-Brazil-2022-ACONTECE-ANTRA-ABGLT.pdf.

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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: L Ifad Brazil Programme Map

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department



Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: M Environmental Social And Climate Management Plan

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

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Programme Management Department

**CAPACITY DEVELOPMENT FOR OVERCOMING HUNGER AND MITIGATING THE EFFECTS OF RURAL
POVERTY AND EXTREME POVERTY – PAULO FREIRE II**

ANNEX 5B

ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN

ACRONYMS

AECID	Spanish Agency of Cooperation
ATER	Technical Assistance and Rural Extension
CPT	Pastoral Land Commission
CRQ	Quilombo Remnant Communities
ESCMP	Environment, Social and Climate Management Plan
ESMP	Environment and Social Management Plan
FF	Family Farming
FO	Farmer Organizations
FPIC	Free, Prior, and Informed Consent
FUNCEME	Fundação Cearense de Meteorologia e Recursos Hídricos
GBV	Gender-based Violence
GCM	General Circulation Models
GDP	Gross Domestic Product (GDP)
HDI	Human Development Index
IFAD	International Fund for Agricultural Development
IL	Indigenous Lands
IMA	Municipal Alertness Index
KM	Knowledge Management
M&E	Monitoring and Evaluation
MMA	The Ministry of the Environment
NCD	Non Communicable Diseases
NEB	Northeast of Brazil (NEB)
PAP	Project Affected Person
PCT	Indigenous Peoples Traditional and Communities
PD	Local Rural Development Plans
PENSAAN	Food and Nutritional Sovereignty and Security
PMU	Project Management Unit
PPPI	State Ten-Year Plan of Public Policies for Indigenous Peoples
PSF	Family Health Establishment (PSF)
RL	Legal Reserve
RO	Rural Organizations
SDA	Ceará State Government's Secretariat for Agrarian Development
SESAI	Special Secretariat for Indigenous Health
SISVAN	Food and Nutrition Surveillance System
SSTC	South-South and Triangular Cooperation
TA	Technical Assistance
TAA	Targeted Adaptation Assessment
ATER	Technical Assistance and Rural Extension

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INTRODUCTION

1. The purpose of this document is to guide the actors and teams responsible for carrying out the Paulo Freire II (PPF II) in fulfilling their attributions related to the management of any adverse social and environmental impacts arising from the implementation of the project. It is a “living” document that can be revised depending on the project’s needs, introducing improvements or filling gaps.
2. The document presents a description of the project and addresses its socio-environmental and climate context. The following is an indicative and non-exhaustive presentation of the legal framework that supports the project’s socio-environmental impact management measures as well as IFAD’s safeguard policies (SECAP).. Possible impacts are presented together with the measures for their identification and management – avoiding them when possible or adopting measures to mitigate them. Finally, the project’s grievance mechanism is presented – which can be used by any beneficiaries or interested parties to channel grievances, complaints, or suggestions to the Project and IFAD.

PROJECT DESCRIPTION

3. The project's goal is to reduce rural poverty and food and nutrition insecurity _{in} family farming. The development objective is _{to} increase the sustainability of production systems and the resilience of family farmers.
4. Currently, production systems are characterized by low productivity, lack of diversification, increasing degradation of natural resources and high levels of vulnerability to climate change, especially drought. They face various social, generational and racial-ethnic inclusion gaps, which results in a perpetuation of poverty, vulnerability, food insecurity and malnutrition. There are few opportunities for family farmers to access technology, services and markets that are adapted and respond to the development of sustainably produced food, bringing employment opportunities. To address these challenges, the project will work along three development paths that will lead to project results and help achieve its goal:
 - i. Improve rural families and farmers organizations (FOs) food production systems and nutrition, allowing them to access new markets and increase sales, while encouraging innovation and youth employment.

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- ii. Ensure that rural families and communities increase their access to water and sanitation through social technologies.
 - iii. Strengthen capacities and empower young people, women, traditional peoples and communities and LGBTQIAP+ groups.
5. The project will cover all 175 municipalities in the semi-arid region of the state of Ceará, but will focus its interventions on 74 priority municipalities. The selected area will consist of new intervention areas, with a combination of some territories of the previous phase that will serve as model and reference for replication of experiences and consolidation of their achievements. The municipalities will be selected based on the Municipal Alertness Index (IMA), developed by IPECE, which combines 12 indicators to measure the vulnerability of municipalities to climatological, agricultural and social assistance issues. It will also consider reference experiences for scaling-up innovative approaches and practices.
6. The map below shows the area of Project:



7. PPF II is structured in three components:

Component 1 - Rural development with environmental sustainability based on agroecology

8. Component 1 aims to implement investments for the development, diversification and adaptation of family productive capacity, with actions carried out to promote and encourage the adoption of agroecological practices and the conservation and preservation of natural resources. It also aims to improve the structure and capabilities of agricultural product processing units, to enhance marketing (cooperatives and others). It will also

support cross-project actions on the themes of gender, youth, traditional peoples and communities (PCTs), and nutrition. This component is subdivided into three sub-components: 1.1. Strengthening Family Farming and Overcoming Hunger and Mitigating the Effects of Poverty; 1.2. Strengthening the Marketing and Processing of Family Farming Products; 1.3. Gender, Youth and Food and Nutrition Sovereignty.

9. Its main actions include:

- i. Implement Local Rural Development Plans (PD) for family farmers, farmer organizations (FOs), and/or collective use, including PD specifically targeting women and youth.
- ii. Environmental PDs implementing collective management of natural resources, promoting restoration of degraded areas, protecting water sources, building seed banks, etc.
- iii. Strengthen existing small cooperatives to improve the processing and marketing of family farming products;
- iv. Developing new market access and marketing channels to bring agro-ecological products to market;
- v. Carry out land and environmental regularization; and
- vi. Promote the empowerment of women and young people, as well as improving the nutrition of beneficiary families.

Component 2: Access to water, sanitation and social technologies

10. The objective of this component is to make investments in water for domestic use and agricultural production, household sewage and renewable energy. It will also raise awareness about good practices in the use of water, hygiene and sanitation as a means to have a greater impact on the nutritional security of the community. Small infrastructures for access and storage of water for agricultural production will be implemented through this component. Whether for community or family use, the investments will guarantee access to water of better regularity and quality, in addition to reducing soil and water contamination with waste produced in family units. Practices and technologies for the rational use of water will be introduced with a focus on climate change adaptation. To contribute to the construction of innovative solutions, the Component will finance the dissemination of innovations developed by local micro entrepreneurs and public agencies. This component is subdivided into 2 subcomponents: 2.1. Rural Community Basic Sanitation; 2.2. Social Technology for Access to Water and Support for Production.

11. Its main actions include:

- i. Implement rural community and family basic sanitation, including social technologies for access to water for human consumption and agricultural production such as cisterns for rainwater harvesting, technologies for wastewater treatment and reuse;
- ii. Building biodigesters and eco-efficient stoves.
- iii. Financing the implementation of innovative solutions customized for the local context, such as specific tools and equipment for small-scale agroecological systems (e.g. agroforestry mechanization), nurseries, composting services, organic fertilizer production, products for pest control, processing machines for cooperatives and associations, products derived from native/traditional species, renewable energy, etc.

Component 3: Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid (INOVA CLIMA)

12. This component will be grant-funded (100% AECID grant resources), and will aim to promote capacity building among small producers and TA teams, foster environmental and nutrition education to ensure food and nutrition security in rural communities, and implement sustainable and inclusive technologies and innovations adapted to the semi-arid environment. Replicable pilot projects will be developed and exchanges organized, following the Triangular and South-South Cooperation (SSTC) model. It also aims to provide support to the PMU to strengthen the state's institutional capacity to implement PPF II. This component is subdivided into 5 sub-components: 3.1. Capacity building of small producers and rural extension teams (Technical Assistance, TA); 3.2. Promoting environmental and climate education with a gender focus in rural schools; 3.3. Promotion of technological research and implementation of pilot projects; 3.4. Knowledge Management (KM) and South-South and Triangular Cooperation (SSTC); and 3.5. Strengthening the PMU for the implementation and monitoring of activities.
13. Its main actions include:
- i. Strengthening TA service on participatory methodologies, agroecological techniques, climate resilience, nutrition, desertification, biodiversity and social inclusion;
 - ii. Provide continuous TA for the development of sustainable food production systems, for the identification, design and implementation of Component 1 and 2 actions. Through TA, technical support will be offered to beneficiaries to improve nutritional practices, agroecological production, safe processing and conservation of local foods with the potential to improve the micronutrient profile of diets;
 - iii. Provide STA to strengthen organizational capacities and the processing and marketing of small cooperatives;
 - iv. Digital TA to complement continuous TA for knowledge and innovation;
 - v. Promote environmental and climate education with a gender focus in rural schools;
 - vi. Promote technological research and implementation of pilot projects;
 - vii. Implementation of KM and communication strategies;
 - viii. Organize SSTC events and exchanges; and
 - ix. Strengthening the PMU for implementing and monitoring activities.

Project Management, Monitoring and Evaluation (M&E):

14. A Project Management Unit (PMU) will be set up at the Ceará State Government's Secretariat for Agrarian Development (SDA) and will be responsible for project implementation, as well as carrying out technical coordination, managing socio-environmental safeguards, financial management, audits and monitoring and evaluation (M&E).

SOCIAL, ENVIRONMENTAL, AND CLIMATE CONTEXT

Overall poverty situation

15. In 2020, the Gross Domestic Product (GDP) of the Ceará State was R\$166.915 billion, and the GDP per capita was R\$18,168.35, 49% below the national average¹. Ceará's Human Development Index (HDI) was 0.682 in 2010, considered average. That same year, Ceará ranked 17th out of the 27 Brazilian states. However, the Rural HDI was 0.575 in 2010, classified as low². With regard to income inequality, in 2019, the state's GINI index was 0.547, higher than the Northeast (0.531) and Brazil (0.509)³.
16. In terms of the percentage of households with children living in poverty, the state has the fourth worst situation among Brazilian states, with 59% of children living in this condition⁴. The social vulnerability of the population living in poverty can be seen in the persistence of illiteracy, food insecurity and the persistence of endemic diseases, among other consequences of the lack of basic social protection. The proportion of people with some degree of multidimensional vulnerability in Ceará fell from 93.9% to 78.9% between 2008/09 and 2017/18. The proportion of people with some degree of poverty also fell, from 63.6% to 30.9% in the same comparison⁵. Nevertheless, in the context of the COVID-19 pandemic, the health, economic and social situation in the Ceará state has worsened. In 2020, with the reduction in emergency aid⁶, the state's extreme poverty rate increased by 8.18%⁷. In addition, between 2019 and 2020, there was a 5.4% increase in the unemployment rate in the state. Family farmers have been particularly affected by the restrictions imposed by pandemic control, suffering reduced income, difficulties in disposing of production and maintaining production processes, which has accentuated pre-existing structural inequalities⁸.
17. In the semi-arid region of Ceará, there is a clear correlation between poverty rates, environmental constraints (shallow, and often degraded, soils, extreme heat and irregular rain regimes) and food and nutritional insecurity. The agricultural activities that prevail in the semi-arid region of Ceará depend exclusively on rainfall, which is generally irregular and scarce. Therefore, rainfed agriculture (which represents 95% of cultivated land) is the main activity for many family farmers and is of great relevance both in the composition of family income and in promoting food and nutritional security, and often explains the significant social and economic impacts of

¹ IPECE (2020). GDP. Special Tables. <https://www.ipece.ce.gov.br/pib-tabelas-especiais/>.

² IPECE (2020). Report no. 203, January/2022. Ceará's human development before COVID-19. Available at: https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2022/01/ipece_informe_203_14_jan_2022.pdf.

³ IPECE (2020a). Enfoque Econômico nº 218 - Analysis of income inequality in the state of Ceará between 2012 and 2019. https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2020/05/Enfoque_EconomicoN218_20_05_2020_.pdf.

⁴ UNICEF Brazil (2023). The multiple dimensions of poverty in childhood and adolescence in Brazil. https://dash-service.azurewebsites.net/?prj=brazil&page=soc_pol#multipobreza.

⁵ IPECE (2023). Enfoque Econômico no. 262 - Reducing multidimensional poverty in Ceará: a comparison of the IBGE's 2008-2009 and 2017-2018 POFs. Available at: https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2023/10/Enfoque_Economico_N262_181023.pdf.

⁶ With the aim of minimizing the effects of the economic downturn, the Federal Government granted a financial benefit called Emergency Aid, aimed at informal workers, individual micro-entrepreneurs, the self-employed, the unemployed and also extended to beneficiaries of the Bolsa Família Program.

⁷ Silva, Vitor; Araújo, Natália (2021). Income and poverty indicators in Ceará in 2020: what the PNAD Covid-19 data say. LEP, Economic Development in Focus, Available at: <https://lepcaen.ufc.br/wp-content/uploads/2021/03/lep-deemfoco-31mar2021.pdf>.

⁸ Cavalli, S. B., Soares, P., Martinelli, S. S., & Schneider, S. (2020). Family farming in times of Covid-19. Revista de Nutrição, 33. Available at: <https://www.scielo.br/rn/a/XMPqn89bG674KkCpNtKhjqs/?format=pdf&lang=en>.

droughts. The high geographical and temporal variability of rainfall, lack of irrigation and inadequate soil management, which lead to land degradation, contribute to the high levels of poverty in the region⁹. Climate change is expected to have a significant impact on Brazilian agriculture, further increasing the occurrence of droughts that affect crop productivity and aggravate food insecurity.¹⁰

18. The Project area has a population of 2.499.605 people¹¹, of which 1,123,322 people live in poverty (45% of the total)¹². There are 178,143 farms in the project area, of which 135,702 (or 76.2%) are family farms. Of the total number of family farms, 25,122 (or 18.5%) are managed by women and 15,879 (or 11.7%) by young people under the age of 35.

Gender

19. According to the 2022 Demographic Census, in the Project area, there are 1.271,632 women, corresponding to 50.9% of the total population, and 1,227,973 men (49.1% of the total population).^{13 14}

20. In Ceará, the Gender Disparity Index is 0.66, indicating that women in Ceará are 34% less likely to have the same opportunities as men, with the biggest gaps being in the dimensions of political empowerment and economic participation and opportunities¹⁵. In addition to the undervaluation of women's productive work, gender disparities are expressed in restrictions on control and access to natural, social and monetary resources. Great inequality persists in the management of production units: only 18,5% of family farming establishments in the semi-arid region of Ceará are run by women and only 13,6% by young women under the age of 35¹⁶. In terms of area, the average area (hectares) of establishments run by men is 76,6% bigger than those run by women (7.7ha x 13.6ha). Among the multiple legal, cultural and structural barriers that exclude women from land rights are patriarchal culture about the gender division of labor in the public and private spheres and the practice of ceding land rights only to one representative of the family - the man.

21. One strategy for rural women to expand their space and independence has been education, with women usually having higher levels of education compared to men. Among women family farmers in the project area,

⁹ Marengo, JA, Galdos, MV, Challinor, A., Cunha, AP, Marin, FR, Santos, M. d., Bender, F. (2021). Sequía en el noreste de Brasil: una revisión de las opciones de adaptación de políticas y agricultura para la seguridad alimentaria. John Wiley & Sons Ltd on behalf of the Royal Meteorological Society

¹⁰ Marengo, JA, Alves, LM, Alvala, R., Cunha, AP, Brito, S., & Moraes, OL (2017). Climatic characteristics of the 2010-2016 drought in the semi-arid region of Northeast Brazil. Proceedings of the Brazilian Academy of Sciences.

¹¹ IBGE (2022). Demographic Census.

¹² CadÚnico (2024). Available at: <https://aplicacoes.cidadania.gov.br/vis/data3/data-explorer.php>.

¹³ IBGE (2022). Demographic Census.

¹⁴ Information on the population from the 2022 Demographic Census disaggregated by rural areas has yet to be available.

¹⁵ BENIGNO, Gabriel Oliveira Lioiola; VIEIRA, Diego Mota; OLIVEIRA, Jessica Eloísa de. The gender gap in Brazilian states and stakeholder analysis of the National Council for Women's Rights. Revista de Administração Pública, v. 55, p. 483-501, 2021. Available at: <https://www.scielo.br/rjrap/a/xkJn9DbJmFbXnMVvmeYdyFG/?format=pdf&lang=en>.

¹⁶ IBGE (2017). Agricultural Census.

20.8% have never been to school, while among men, 28.3% have never been to school. Despite the better educational indicators, women's average income is lower - northeastern women earn on average 86.5% of men's income¹⁷. The so-called selective rural exodus of more educated young women is a contemporary phenomenon that is intensifying in the context of agricultural modernization. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of rural family farming (FF) establishments aged up to 35 in the semi-arid of Ceará fell 9.7 percentage points (from 21.2% to 11.5%). The invisibility and devaluation of women's labor, in caring for children and household chores, and in family farming, also encourages younger women to leave rural areas.

22. Despite women's fundamental contribution to agricultural production, social reproduction of family farming and community development, their work is often made invisible because they are not part of the formal labor market and because part of women's productive activity does not involve monetized transactions. IBGE data (2017) shows that 86.5% of female family farmers in the semi-arid region of Ceará produce for their own consumption, compared to 80.7% of men. An IFAD study also shows that self-consumption represents 34.1% of the production value brought by women family farmers in IFAD projects¹⁸, compared to a national average of 17.8%¹⁹. With work dynamics concentrated in the private sphere, they are generally excluded from decision-making on the use of financial resources.
23. Access to Technical Assistance (TA) for women is also lower than for men. While 11.6% of male family farmers (FFs) in the project area receive TA, only 8.7% of female FFs do. There are also lower rates of membership of Rural Organizations (ROs), such as associations and cooperatives. According to the 2017 Agricultural Census, among the female family farmer leaders in the Project area, 178 were members of cooperatives (0.7%) and, among men, 899 (0.8%) were cooperative members. In addition to more limited participation, women often do not have an equal voice because they are not equally represented in positions of power within the ROs.
24. Rural women in the Project area also suffer from double working hours and a workload that exceeds that of men, including a higher proportion of unpaid domestic responsibilities related to food preparation and the collection of firewood and water²⁰. In Brazil, women work on average 7.5 hours more per week than men. They are also more vulnerable than men to environmental and climate challenges because of their social roles, for example as the main collectors of water, food and firewood in a context where increasing pressure on natural resources and environmental degradation are negatively affecting water and food supplies, because of the discrimination they suffer and their poverty rates²¹.

¹⁷ IBGE (2021). Gender Statistics: Social indicators of women in Brazil. 2nd edition. https://biblioteca.ibge.gov.br/visualizacao/livros/liv101784_informativo.pdf.

¹⁸ IFAD (2021). Análise de um ano de uso das Cademetas Agroecológicas nos Projetos apoiados pelo FIDA no Brasil. Available at: <https://www.ecoagri.com.br/web/wp-content/uploads/cademetas-agroecologicas.pdf>

¹⁹ LEITE, S. "Autoconsumo y sustentabilidad en la agricultura familiar: una aproximación a la experiencia Brasileña". In: BELIK, W. Políticas de seguridad alimentaria y nutrición en América Latina. São Paulo: Hucitec, 2004.

²⁰ FAO. The role of women in Agriculture. ESA Working Paper No. 11-02, March 2021. <https://www.fao.org/3/am307c/am307e00.pdf>.

Climate Change. <https://www.un.org/womenwatch/feature/ruralwomen/overview-climate-change.html#:~:text=Brazil%20women%20are%20disproportionately%20impacted%20by%20climate%20change,sustainable%20development%20and%20effective%20responses%20to%20climate%20change>.

25. Violence in rural areas is increasing every year, as shown by the growing number of murders of rural workers. The "Conflicts in the Rural Areas of Brazil 2022" report by the Pastoral Land Commission (CPT) shows that the number of conflicts in the rural areas has increased from 804 cases in 2013 to 1500 in 2022; in 2022 alone, 47 murders were recorded compared to 35 in 2013²². Domestic violence is also dramatic in rural areas and the number of female murders (femicides) has increased. IPEA data for Ceará indicates a femicide death rate of 10.2 women per 100,000 in 2018, the second highest rate in Brazil²³. In Ceará, the rates of violence show that black women suffer much more physical and psychological violence when compared to non-black women. They are also the biggest victims of femicides²⁴, suffering femicide rates four times higher than white women. The lack of facilities in the Network to Combat Violence against Women makes rural women more vulnerable to violence and restricts their access to protection.

Young People

26. According to the 2022 Demographic Census, in the Project area there are 502.541²⁵ young people (15 to 29 years old)²⁶, representing 23,7% of the total population. Among youth, 49% are women (295.296 people). The main challenges faced by rural youth in the Project area are: i) lack of employment and income opportunities (with little diversification of agricultural and non-agricultural activities that attract young people), ii) lack of access and control over resources, inputs, goods and technologies, iii) limited access to public policies and services and iv) low participation and decision-making power in rural and community organizations.

27. Around 25% of young people in Ceará are considered vulnerable to poverty because they neither study nor work, the majority being black men and women²⁷. Young women of African descent have a higher percentage of being out of school and the labor market. The precarious living conditions and limited opportunities for sustainable study and work in the semi-arid region of Ceará have led to rural youth migrating to urban areas, mainly for young women with more schooling, a process that is reflected in the increase in the proportion of men (masculinization) and aging of the rural population, which challenges family succession. The phenomenon of young women being the ones who leave the rural areas the most is also related to their refusal to take on the same roles played by their mothers and grandmothers in the family production unit²⁸. Comparing the 2006 Agricultural Census and the 2017 Census, the number of heads of family farming units in the semi-arid of Ceará

²² CPT. Conflicts in the Rural Areas of Brazil 2022. <https://cptnacional.org.br/publicacoes-2/destaque/6354-conflitos-no-campo-brasil-2022>.

²³ IPEA (2020). Atlas of Violence. Available at: <https://forumseguranca.org.br/wp-content/uploads/2020/08/atlas-da-violencia-2020.pdf>.

²⁴ It should also be borne in mind that female homicide rates are underreported. Source: <https://portal.fiocruz.br/noticia/homicidios-de-mulheres-no-brasil-aumentam-3146-em-quase-quatro-decadas>.

²⁵ IBGE (2022). Demographic Census.

²⁶ The Brazilian Youth Statute (2013) defines young people as those between 15 and 29 years of age. Source: https://www.gov.br/mdh/pt-br/navegue-por-temas/juventude/publicacoes/estatuto_da_juventude_2022-defeso.pdf.

²⁷ IBGE (2022b). Synthesis of Social Indicators, 2022. <https://biblioteca.ibge.gov.br/visualizacao/livros/liv101979.pdf>.

²⁸ SILVA, Luciana Porto da. "Female youth in the rural Northeast: an analysis of the process of permanence based on the Census (1980-2010) and Pnad (1992-2015)." (2018). Available at: https://repositorio.unb.br/bitstream/10482/32747/1/2018_LucianaPortodaSilva.pdf.

under 35²⁹ decreased by 9.7%. The lack of public policies that focus on the demands and needs of rural youth is also among the root causes of the emigration of young people from Ceará.

28. For those young people in the Project area who want to remain in family farming, the factors that influence them are financial resources and training access, the appreciation of rural lifestyles, the availability of services and conditions that can offer the possibility of success in agricultural production³⁰. However, in the Project area, only 11.7% of family farms are managed by youth under 35 and only 10% of youth under 35 have access to technical assistance, as well as extremely limited access to credit³¹. The modernization of agriculture, which is a fundamental means of increasing income, reducing production costs through the use of more efficient technologies and greater access to new and differentiated markets, is a strategy that can contribute to the revaluation of the rural productive space by young people.
29. With regard to child labor, in Ceará in 2019, 82,264 children and adolescents aged 5 to 17 were in child labor, which was equivalent to 4.7% of all children and adolescents in the state³². Working children and adolescents in Ceará spent 15.7 hours of their time on work activities in 2019.

Indigenous Peoples and Traditional Communities

30. Indigenous Peoples and Traditional Communities (PCTs)³³ in the Project area are impacted by the combined effects of numerous forms of discrimination, such as by gender, race, and socio-economic conditions. PCTs are particularly vulnerable due to historical structures of exclusion, high dependence on natural and ecosystem resources affected by mismanagement, climate change, marginalization of their ways of life and exclusion from public policy-making. As a result, they face even greater obstacles to participating in decisions that affect their territories and to the full realization of their civil and human rights, with significant inclusion gaps in terms of poverty, access to basic services such as health and education, technical assistance, land, water and sanitation. PCT women are the most marginalized and socially excluded groups, facing higher rates of violence, poverty and food insecurity, as well as more limited access than other women to public health and education policies, among others. They are also the target groups most vulnerable to climate change.

²⁹Although, in Brazil, youth are defined as those between 15 and 29 years old, the Agricultural Census does not have data for this group; the closest age group in the database is people under 35.

³⁰LIMA, S.M.V. Juventude Rural e as Políticas e Programas de Acesso à Terra no Brasil: Recomendações para Políticas de Desenvolvimento para o Jovem Rural. Brasília: MDA, 2013.

³¹ Pronaf Youth was created with the aim of encouraging young people to stay in the rural areas. However, this funding has not materialized in practice, as evidenced by the fact that, between 2016-2019, only 240 Pronaf Youth contracts were signed in the entire Northeast region. Source: Public Policy Monitoring and Evaluation Council. Evaluation Report: National Program for Strengthening Family Farming, 2020. Available at: <https://www.gov.br/economia/pt-br/ acesso-a-informacao/participacao-social/conselhos-c-orgaos-colegiados/emap/politicas/2020/subsidios/relatorio-de-avaliacao-cmas-2020-pronaf> .

³² Child Labor Free (2019). Child labor in Ceará. Available at: <https://livredetrabalho infantil.org.br/mapa-do-trabalho-infantil/trabalho-infantil-no-ceara/>.

³³ Traditional peoples and communities are culturally differentiated groups who recognize themselves as such, who have their own forms of social organization, who occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition (item I Art. 3 Decree 6.040 / 2007).

31. Indigenous people. The 2022 Demographic Census recognized just over 56,000 indigenous people in the state of Ceará, while the previous one, from 2010, counted around 19,300 indigenous people living inside and outside Indigenous Lands (ILs). Ceará is currently the ninth state in Brazil with the largest indigenous population. The state is following the national trend of an increase in the indigenous population. The Census data also shows the municipalities where there were more indigenous people in absolute numbers, with the municipalities of Caucaia (17,628 indigenous people) and Itarema (5,115 indigenous people) in the top positions.
32. In Ceará there are currently 30 Indigenous Lands (ILs), occupying an area of approximately 22,330 hectares and with a population of around 23,000 inhabitants (MPF, 2022). Among these, the largest is the Tapeba Indigenous Land totaling approximately 5838 hectares and having a population of 6552 people³⁴. The indigenous peoples of the Caatinga often live in reduced areas and suffer intense pressures that cause serious social, environmental, and climatic vulnerability.
33. Within the rural area covered by the Project, there are 10,266 indigenous people, 49,7% women and 25.6% youth³⁵. Of the total indigenous population, only 6,842 live in indigenous territories³⁶. Among family farmers, the 2017 Agricultural Census indicates that at least 798 are indigenous. Among the indigenous people registered in the Single Registry in the Project area (8,053), 76.6% are in poverty.
34. The majority of the indigenous population is facing accelerated social transformation and needs to seek its physical and cultural survival and guarantee a better quality of life for current and future generations. It is estimated that in Brazil, less than 5% of young rural indigenous people aged between 20 and 29 have 13 or more years of schooling³⁷. In terms of health, infant mortality in the first year of life for indigenous children is three times higher than the national average. Between 2018 and 2021, the Special Secretariat for Indigenous Health (SESAI) recorded 3,126 deaths of indigenous children aged 0 to 5, mostly due to preventable and treatable diseases such as diarrhea and malnutrition. 72% of the deaths were of children under the age of 1. The precarious situation of indigenous children is evident in the fact that anemia affects 50% of them.
35. Quilombolas (Maroons)³⁸. The 2022 Demographic Census indicates that there are 10,437 quilombola people in the Project area, of which only 2,033 live in quilombola territories. In the Project area, there are 34 Quilombo Remnant Communities (CRQ) certified by the Palmares Cultural Foundation³⁹, distributed across 15

³⁴MPF (2020). Tabela Terras Indígenas. Available at: <https://www.mpf.mp.br/atuacao-tematica/ccr6/documentos-e-publicacoes/tabela-terras-indigenas-2020/tabela-terras-indigenas-2020.pdf>.

³⁵ IBGE (2022). Demographic Census.

³⁶ Idem.

³⁷ ECLAC (2016). The matrix of social inequality in Latin America. Available at: <https://www.cepal.org/es/publicaciones/40668-la-matriz-la-desigualdad-social-america-latina>.

³⁸ Quilombolas are descendants of enslaved people who resisted the slave regime and have their own cultural identity and values, religious beliefs and means of subsistence.

³⁹ Palmares Cultural Foundation (2023). Quilombola Certification. <https://www.gov.br/palmares/pt-br/departamentos/protecao-preservacao-e-articulacao/certificacao-quilombola>.

municipalities^{40 41}. Among the quilombolas registered in the Single Registry in the Project area (3,433), 71,9% are in poverty or extreme poverty⁴². Their main economic activities are based on subsistence agriculture associated with extractivism and artisanal fishing. Quilombola identity is strictly associated with belonging to the collective territory in which they live. Like other traditional communities, they make common use of natural resources and their relationship with the environment is based on differentiated cultural practices. Although the 1988 Brazilian Constitution recognizes the CRQ as legal holders of the right to the land they have historically occupied, the process of recognizing and regularizing quilombola territories is still challenging and these communities often suffer from human rights violations, having historically been subjected to a process of expropriation of their territories. The Quilombola Nutrition Call, which took place in 2006, found that 15% of children under the age of 5 were short for their age, expressing severe malnutrition⁴³. With regard to public infrastructure access, 11% of the quilombola communities surveyed did not have a Community Health Agent, 38% did not have a Family Health Establishment (PSF). Garbage was not collected in 71% of quilombola households and almost half of them (45.8%) had open sewers. Even when there are public health services, their organizational logic disregards the dynamics of the groups' territories⁴⁴.

36. Artisanal fishermen. Artisanal (or small-scale) fishing, carried out by self-employed producers using traditional techniques, is inherited by generations of fishermen and plays a fundamental role in biodiversity conservation, food security and poverty eradication. According to data from the 2013 PNAD, artisanal fishermen (self-employed, unpaid and producing for their own consumption) make up the vast majority of Brazilian fishers (90.3% or 440,266 workers)⁴⁵. The marginalization suffered by this group in Brazil is evident in the socio-economic indicators available for this population. The majority of artisanal fishermen declared that they only depended on fishing to survive and the *per capita* household income of subsistence fishermen was less than half the national minimum wage in 2013 (corresponding to 46.6% of it), while that of professional fishermen was only slightly higher (equivalent to 59.3% of the minimum wage)⁴⁶. Among the artisanal fishermen registered in the Single Registry in the project area (3,002), 62.7% are in poverty.
37. Other traditional peoples and communities. In addition to indigenous peoples, quilombolas and artisanal fishermen, the project area is home to many unidentified traditional and culturally differentiated communities that occupy and use territories and natural resources as a condition for their cultural, social and economic

⁴⁰ IBGE (2020). Geographical and Statistical Information Base on indigenous people and quilombolas to combat Covid-19. Available at: <https://dadosgeociencias.ibge.gov.br/portal/apps/sites/#/indigenas-e-quilombolas>.

⁴¹ The municipalities are: Araripe, Caucaia, Coreaú, Crateús, Ipueiras, Itapipoca, Monsenhor Tabosa, Moratújo, Novo Oriente, Pacujá, Potengi, Quixadá, Quixeramobim, Salitre, Tamboril

⁴² The most recent update on the Single Registry (Cadúnico) database does not allow to disaggregate those in poverty from those in extreme poverty anymore; it merges these two categories.

⁴³ MDS (2006). Quilombola Nutrition Call. <https://fpabramo.org.br/acervosocial/estante/chamada-nutricional-quilombola-2006/>.

⁴⁴ MELO, Williane Ferreira (2017). Quilombola communities and health policies. <https://terradedireitos.org.br/acervo/artigos/comunidades-quilombolas-e-politicas-de-saude/22602>.

⁴⁵ CAMPOS, André Gambier; CHAVES, José Valente (2016). Labor profile of artisanal fishermen in Brazil: inputs for the Seguro Defeso Program. *Política em Foco*, 60, April 2016. Available at: http://repositorio.ipea.gov.br/bitstream/11058/10294/6/bmt_60_perfil_laboral.pdf.

⁴⁶ Idem.

reproduction, including: terreiro communities, extractivists (non-timber products), river dwellers, gypsies, shellfish gatherers and caboclos. There is often an overlap between these social segments.

Marginalized groups

38. Agrarian Reform Settlers. The rural environment of the Brazilian semi-arid region is still marked by high land concentration, socio-economic inequalities and agrarian conflicts⁴⁷. Around 1 million Brazilian families are settled by the agrarian reform. The Northeast concentrates 30% of these families and 11.2% of the hectares earmarked for settlements in the country. Data from the Single Registry (2023) indicates that there are 2,468 agrarian reform settler families registered in the project area, 51.0% of whom are in poverty. In addition to the high poverty rates, this group has other socio-economic vulnerabilities, including: i) insecure access to land, since not all of them have been granted land titles; ii) water insecurity, since the collective sanitation and water access infrastructures are non-existent, precarious or have not been completed; iii) lack of access to technical assistance; and iv) precarious access to public credit, education, security, health and housing policies, among others.
39. People with disabilities. According to the IBGE, the Northeast was the region with the highest percentage of people with disabilities, 10.3% of the population or around 5.8 million people⁴⁸. The survey also showed that the highest percentages were women and self-declared black people. Data from the Single Registry (2023) indicates that there are 281,661 people with disabilities in Ceará, 44.8% of which live in the Project area (126,265 people). Disability and poverty are closely linked, with people with disabilities facing significant stigma and discrimination. For example, they have lower success rates at school and more limited access to economic activities, both of which are major factors contributing to family poverty. People with disabilities face a number of challenges throughout the life cycle. There is a relatively high number of female-headed households receiving the main tax-funded disability benefit in Brazil, the Continuous Social Assistance Benefit, and this may be related to the high rate of abandonment of children with disabilities by their parents. There are some additional gender dimensions that have an impact on the challenges faced by people with disabilities. Women and girls with some form of disability are at high risk of abuse, and this is especially the case for those with cognitive disabilities. Furthermore, until the Brazilian Inclusion Law (2015) was enacted, it was still routine for women with cognitive disabilities to be sterilized without consent. Caring for people with disabilities also has a significant gender dimension. In general, women face the double burden of needing to both earn an income and provide care, and this burden is only exacerbated when family members are disabled. It should also be noted that disabled women can also have a disproportionate burden of care placed on them, as they can still be expected to care for other members of their family.
40. LGBTQIAPN+ community. The lack of government data on the socio-economic and political challenges faced by the **LGBTQIAPN+** community is indicative of the statistical invisibility and marginalization of this group. The lack of a social assistance policy, the rural exodus of the **LGBTQIAPN+** population to urban centers, the lack of family support, the limited access to income and low employability in the rural areas, the difficulty of staying in the school environment due to prejudice, especially for the trans population, are some of the factors that

⁴⁷ Paupitz, J. (2010). Elements of land structure and land use in the Brazilian semi-arid region. *CAATINGA*.

⁴⁸ IBGE (2022). Continuous PNAD.

keep data on the **LGBTQIAPN+** population in rural areas invisible. Brazil is an extremely unsafe country for this population, as indicated by the upward trend in the number of violent deaths of **LGBTQIAPN+** people over the last two decades. Between 2000 and 2022, 5,635 (five thousand six hundred and thirty-five) people died as a result of gender prejudice and intolerance. In 2022, there were a total of 273 deaths of **LGBTQIAPN+** people, a national average of 1.31 deaths per million people⁴⁹. Most of the deaths occurred among young people aged between 20 and 29 and the Northeast region had the highest absolute number of violent deaths.

Food security and nutrition

41. After experiencing a significant drop in food insecurity between 2004 and 2013 (a period during which social policies have been extensively deployed), food insecurity rose again with the economic crisis that hit the country after 2015. As a result, food insecurity was affecting 47% of Ceará families in 2017, and at severe level (hunger) for 175,000 of them⁵⁰. During the pandemic (2022), the Brazilian Research Network on Food and Nutritional Sovereignty and Security (PENSAAN) found that only 18.2% of households in Ceará were food secured, a proportion significantly lower than the percentage attributed to the Northeast region (31.9%)⁵¹. At that time, 26.3% of Ceará households were suffering from hunger, which represented 2.4 million people⁵². Ceará was therefore the eighth state with the highest proportion of households with residents living with severe food insecurity in Brazil⁵³. The significant drop in incomes resulting from the economic and political crisis as well as the successive droughts that are severely impacting the food production of the state are among the main causes that led to that situation. The latter translates into higher consequences on health and nutrition for the most vulnerable households.
42. Although significant improvements in child health were recorded in Ceará between 1987 and 2007 (breastfeeding rate increasing by 43%, chronic malnutrition rate dropping from 28% to 13%, acute malnutrition dropping from 13% to 5%, diarrheal diseases contributing to 3.9% of child mortality against 36.6% in 1986),⁵⁴ malnutrition persists and is characterized by the lack of adequate breastfeeding practices, the increase in overweight and obesity prevalence and micronutrient deficiencies, affecting in particular women

⁴⁹ OBSERVATORY (2022). Observatory of LGBTI+ deaths and violence in Brazil. Dossier 2022: Deaths and violence against LGBTI+ people in Brazil. Available at: [Dossie-de-Mortes-e-Violencias-Contra-LGBTI-no-Brasil-2022-ACONTECE-ANTRA-ABGLT.pdf](https://dossie-de-mortes-e-violencias-contra-lgbti-no-brasil-2022-acontece-antra-abgl.pdf).

⁵⁰ IBGE. Family Budget Survey (POF), 2017-2018. Available at: https://ftp.ibge.gov.br/Orcamentos_Familiares/Pesquisa_de_Orcamentos_Familiares_2017_2018/Analise_da_Seguranca_Alimentar/05_unidades_da_federacao.xls.

⁵¹ IPECE (2022). Estudo do Ipece mostra insegurança alimentar no Ceará, Nordeste e Brasil.

⁵² PENSSAN (2022). II National Survey on Food Insecurity in the Context of the COVID-19 Pandemic in Brazil [II VIGISAN: final report]. Brazilian Research Network on Food Sovereignty and Security - PENSSAN. São Paulo, SP : Friedrich Ebert Foundation. Network. Available at: <https://olheparaafome.com.br/wp-content/uploads/2022/06/Relatorio-II-VIGISAN-2022.pdf>.

⁵³ IPECE (2022). Report No. 220 - Family farming and food security in Ceará. Available at: https://www.ipece.ce.gov.br/wp-content/uploads/sites/45/2022/12/ipece_informe_220_20Dez2022_.pdf.

⁵⁴ Silva AC, Correia LL, Campos JS, de Oliveira Andrade FM, da Silveira DMI, Madeiro Leite AJ, et al. Reducing Child Mortality: The Contribution of Ceará State, Northeast of Brazil, on Achieving the Millennium Development Goal 4 in Brazil. *Maternal Child Health J.* 2015 Apr 1;19(4):700-6.

and children. A study carried out in 2017 in the state⁵⁵ showed that 8.2% of children suffered from stunted growth, 3% were underweight and 2.1% suffered from emaciation. Among women (adolescents and adults of childbearing age), iron deficiency anemia was estimated at 28.57% for the Northeast Region, one of the highest rates of the country. The Food and Nutrition Surveillance System - SISVAN also observed a clear decrease in the consumption of three main meals a day on a sample of 15,000 adults perceiving the former Bolsa Familia in Ceará, with a higher tendency among women. Economic and social vulnerability and the increase in single-parent households, mostly headed by women, may have contributed to this trend. The prevalence of exclusive breastfeeding was only 2% in the 1980's and the country showed dedication for a change, including by providing better prenatal care. Still, the prevalence of exclusive breastfeeding at national level remains at 45.8% (SOFI, 2023), which is low compared to other countries. Exclusive breastfeeding during the six first months of life of the infant presents several health benefits; breast milk contains all the nutrients needed for growth and development and protects against disease such as diarrhea, pneumonia. In addition, it prevents from the risk of overweight and obesity in childhood and adolescence.

43. Taking a closer look at the diets, results from a study on trends in food consumption by adults in the Northeast observed that between 2015 and 2020 the consumption of fruit and vegetables has increased significantly. At the same time the consumption of ultra-processed foods increased dramatically too⁵⁶. Indeed, there was a significant increase in the consumption of certain unhealthy food such as hamburgers and sausages (83.3%), cookies (39.1%) and sugary drinks (25.5%). This trend coincides with the high prevalence of obesity and overweight at a national level, where 28.2% of adult women (aged 18 and over) and 21.1% of adult men live with obesity⁵⁷ and where over 70% of adults of 40 to 59 years old live with overweight.⁵⁸ According to a recent study on the food and nutritional security of indigenous peoples in Brazil, less dependence on local food production and greater age and parity are some of the factors associated with overweight and obesity among indigenous women⁵⁹. The typical Brazilian diet consists of a lot of rice, beans, fresh fruit such as açaí, papaya and guava, as well as tubers such as manioc and yams. However, young Brazilians are becoming less and less familiar with the many traditional indigenous foods and dishes and the consumption of traditional food is overall decreasing. The consumption of unhealthy food and the lack of physical activity are some of the factors linked to the development of non communicable diseases (NCDs) (diabete, cancers, cardiovascular and

⁵⁵ Hermano A.L. Rocha. Undernutrition and short duration of breastfeeding association with child development: a population-based study. *Jornal de Pediatria*, vol. 98, no. 3, pp. 316-322, 2022. Sociedade Brasileira de Pediatria. [Internet]. [cited 2023 Sep 7]. Available from: <https://www.redalyc.org/journal/3997/399771287016/html/>.

⁵⁶ Ribeiro GJ, Mendes AEP, Costa E de A, Carvalho DV. Trends in food consumption by adults in a Brazilian northeastern state. *J Taibah Univ Med Sci*. 2023 Dec 1;18(6):1261-7.

⁵⁷ Global Nutrition Report. Country Nutrition Profiles [Internet]. [cited 2022 Dec 1]. Available from: <https://globalnutritionreport.org/resources/nutrition-profiles/latin-america-and-caribbean/south-america/brazil/>.

⁵⁸ Eduardo A.F. Nilson, Beatriz Gianicchi, Gerson Ferrari & Leandro F.M. Rezende (2022). The projected burden of non communicable diseases attributable to overweight in Brazil from 2021 to 2030. *Scientific Reports Nature portfolio*.

⁵⁹ Coimbra CE, Tavares FG, Ferreira AA, Welch JR, Horta BL, Cardoso AM, et al. Socioeconomic determinants of excess weight and obesity among Indigenous women: findings from the First National Survey of Indigenous People's Health and Nutrition in Brazil. *Public Health Nutr*. 2021 May;24(7):1941-51.

respiratory diseases). According to a scientific study, major NCD deaths could be prevented by reducing overweight and obesity.⁶⁰

Environmental Conditions

44. Around 92% of Ceará's territory is located in the semi-arid region of Brazil, in the Caatinga Biome. The Caatinga biome covers the interior of northeastern Brazil, stretching across nine states: Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia and parts of Minas Gerais (see map below). It covers 850,000 km² - around 10% of Brazil's surface area. Located between 3°S 45°W and 17°S 35°W, the Caatinga experiences irregular winds from all directions. Rainfall is therefore intermittent but intense, averaging 350-800 mm/year. Prolonged periods of drought are common and can last several years, when rainfall is well below average. This biome, dominated by xerophytic scrub and thorn forests, has the highest solar radiation and average annual temperature and the lowest levels of relative humidity and rainfall in Brazil.
45. Partly due to the extreme conditions, the Caatinga is rich in biodiversity. The Ministry of the Environment (MMA) records 178 species of mammals, 591 species of birds, 177 species of reptiles, 79 species of amphibians, 241 species of fish and no less than 221 species of bees. Much of this biodiversity is endemic to the Caatinga: 318 of the 932 plant species, 137 fish species, at least 57 reptiles and amphibians and 3 mammal species. Protected areas cover 7.7% of the Caatinga (one of the least protected biomes in Brazil), most of which allow some form of extractive use of their resources. Only 1.2% of protected areas guarantee total protection. In Ceará, this percentage is 0.6%. Therefore, most of the biome's biodiversity and forest resources lie within a productive landscape in which small family properties are one of the main forms of land use.
46. Shallow, often saline soils with low organic matter content are particularly vulnerable to degradation (nutrient depletion, salinization, compaction and erosion). Livestock farming, an important economic activity in the region, contributes to deforestation, soil compaction and erosion. The problem is aggravated by overgrazing and the use of fire to clear land and remove weeds - leading to the depletion of soil organic matter, loss of fertility and a decline in productivity with perverse effects on producers' incomes. Ceará was the state that lost the most forest formations in the caatinga biome in 36 years. An analysis carried out by MapBiomias using satellite images in the period between 1985 and 2020 recorded that 340,000 hectares were cleared of these formations.
47. Changes in land cover over the last three decades, together with the aforementioned agricultural practices, have aggravated desertification in parts of the Caatinga. According to an assessment using satellite images, covering the period between 1985 and 2020, 112 municipalities (out of a total of 1,130) in the biome have been classified as Areas Susceptible to Desertification (ASD). Ceará has three areas with desertification centers: Irauçuba, Inhamuns and Médio Jaguaribe. A survey carried out by FUNCEME (2016) identified that 70,522 km² of this area are already heavily degraded. Land degradation is a consequence of adverse soil and climate conditions, aggravated by the adoption of unsustainable agricultural practices, in particular: deforestation, the use of fire and overgrazing (especially by cattle).

⁶⁰ Eduardo A.F.Nilson, Beatriz Gianicchi, Gerson Ferrari & Leandro F.M Rezende (2022). The projected burden of non communicable diseases attributable to overweight in Brazil from 2021 to 2030. Scientific Reports Nature portfolio.

48. Ceará has 20% of its native vegetation preserved, and in the hinterlands only 10% of the dense arboreal caatinga is preserved. Between 2019 and 2021, deforestation advanced significantly in the state. MapBiomas' Annual Report on Deforestation in Brazil found that deforestation in the state rose from 854 hectares in 2019 to 20,820 hectares in 2021. Between 2021 and 2022, there was a 13% increase in the deforested area.

Climate change

49. The Caatinga is among the most vulnerable biomes in a scenario of changes in the vegetation cover of the tropical portion of South America, since the increase in temperature, associated with anthropogenic activities to remove vegetation, is conducive to the occurrence of aridification and desertification. The semi-arid region is the most vulnerable to the effects of desertification in Brazil. With rainfall irregularly distributed in space and time, precipitation between 600 and 800 mm per year concentrated in periods of three to five months, high annual average temperature (27 °C) and potential evapotranspiration (2,000 mm/year), it has a negative water balance for a large part of the year.
50. In the Northeast of Brazil (NEB), the General Circulation Models (GCMs) differ in their projected results for rainfall, ranging from an increase to a decrease, but the average of the models indicates a greater likelihood of a reduction in rainfall. The projections of the Brazilian Panel on Climate Change (PBMC) for the NEB are for a decrease of between 10% and 20% in rainfall and an increase of 0.5 to 1 °C in air temperature over the next three decades (until 2040), with a gradual increase in temperature of 1.5 to 2.5 °C and a decrease of between 25% and 35% in rainfall patterns in the period 2041-2070. Significantly warmer conditions (temperature increase of between 3.5 and 4.5 °C) and a worsening of the regional water deficit with a decrease of almost half (40% to 50%) of the rainfall distribution are indicated at the end of the century (2071-2100) in the projections. These changes could trigger the desertification process in the Caatinga (Guimarães et. all, 2016). In Ceará, climate models⁶¹ point to a significant increase in temperature and the frequency of extreme events, such as droughts and floods. The models also predict a decrease in precipitation, but not a significant one (less than 2%). In addition, climate change forecasts point to an intensification of soil degradation processes, such as salinization, erosion, reduction of organic matter stocks and loss of soil biodiversity. The world's semi-arid regions, such as Ceará and much of Northeast Brazil, are characterized as one of the most environmentally and climatically vulnerable regions, which will suffer from losses in water quality and availability for agriculture, reflecting socio-economic impacts such as productivity losses and rural exodus. Agriculture and semi-arid environments will be severely affected by climate change, since the increase in temperature and decrease in precipitation results in an increase in evapotranspiration and a decrease in the amount of water in the soil available for crops, associated with a lower supply of water for irrigation.
51. These changes will negatively affect plant and animal productivity and biodiversity, as well as exacerbating problems resulting from water scarcity and fires. Family farming is already extremely vulnerable to climate variability given the state's water restrictions and high temperatures. Thus, Ceará's agriculture is at imminent risk, which could result in a decrease in food security and a reduction in farmers' incomes⁶². According to the

⁶¹ <https://climateknowledgeportal.worldbank.org/country/brazil/climate-data-projections>

⁶² The multidimensional poverty index used was specific to the state of Ceará (6.1) and not the national one. https://repositorio.ufc.br/bitstream/riufc/15327/1/2014_dis_rfamaral.pdf

State Program to Combat Desertification, the implications of climate change on the rural population in the semi-arid region of Ceará can be summarized as follows: loss of employment, migration, loss of land access, loss of production, livestock and income. The trend is for family farming incomes to fall, contributing to an increase in inequality, exacerbating existing conflicts (e.g. access to water) and migratory flows from the rural areas to the city. Services to help the population already exist, such as funding for cisterns, agricultural insurance and water trucks. However, their reach is limited, among other reasons, by land insecurity and incipient environmental regularization.

LEGAL AND INSTITUTIONAL FRAMEWORK

52. The measures for identification, management, and mitigation proposed in this document are based on Brazilian legislation and international agreements ratified by the Brazilian Congress. These norms aim at promoting the respect of human rights and ensuring a healthy and integral environment. In addition to the body of legal norms that establish general principles of conduct for project agents, there are also prescriptive and operational standards that provide guidance and legal requirements for the execution of certain activities provided for in the project, for example, regarding the environmental licensing of small industries, and issues related to indigenous populations and gender. The legal framework relevant to the project includes the following norms (see **Annex 1**):

- Constitution of the Federative Republic of Brazil of 1988:
- National Environment Policy (1981)
- National Environmental Education Policy (1999)
- National System of Conservation Units (2000)
- National Strategic Plan for Protected Areas (2006)
- National Policy for the Sustainable Development of Traditional Peoples and Communities (2007)
- Forest Code – Law No. 12,651, May 5, 2012
- ILO Convention 169 on Indigenous Peoples (2010)
- PNGATI - National Policy for Territorial and Environmental Management of Indigenous Lands (2012):
- Maria da Penha Law (2006)
- CLT
- CONAMA Resolutions

IFAD Safeguard Policies

53. **Targeting commitments:** IFAD is committed to rural transformation through equitable, sustainable, and inclusive development. To improve its contribution to the 2030 Poverty Eradication Agenda in all its forms and leave no one behind, the Fund aims to improve its direction to improve the livelihoods of the poorest and most vulnerable people in rural areas through its country strategies and investment projects.

54. All projects undergo an environmental, social, and climate assessment to help IFAD determine whether a project or component should be supported. If IFAD authorizes a project, the assessment determines how to address potential risks and impacts (both those affecting design and those caused by the project). The risk level is

determined in the case-by-case assessment, with mitigation measures appropriate to the nature and scale of the project and to its environmental, social, and climatic risk level. If unforeseen environmental and social risks or impacts arise during the project's implementation, the project team, in collaboration with national authorities, shall adjust the project plan or introduce appropriate mitigation measures. For all IFAD-supported projects, relevant standards - and how they will be applied throughout the project lifecycle - are identified during the project preparation and evaluation process.

55. Recognizing the importance of addressing the causes and consequences of climate change in the countries where IFAD operates, the fund evaluates the importance of climate risks and supports its partners in the development of climate adaptation and mitigation measures aligned with the national climate-related plans and commitments themselves. Projects with climate risk rated substantial or high, such as this one, have to elaborate a Targeted Adaptation Assessment (TAA) indicating the most appropriate adaptive measures to be implemented by the project. IFAD also identifies opportunities to prevent, minimize or reduce greenhouse gas (GHG) emissions in the projects it supports.
56. **Minimizing adverse social and environmental impacts:** IFAD will prevent or mitigate potential adverse impacts on the environment (including biodiversity and ecosystems), health and safety, working conditions (including the prevention of all forms of harmful or exploitative forced labor and child labor), and welfare and livelihoods of project workers and local communities. IFAD will avoid any potential unintended consequences imposed by an IFAD-supported operation in areas beyond project boundaries.
57. Tackling gender-based violence and discrimination and promoting gender equality is within the fund's mandate. IFAD-supported projects will identify any gender-specific and disproportionately adverse potential impacts and develop mitigation measures to reduce them. IFAD will require its partners to take steps to prevent and deal with any form of gender-based violence, including sexual harassment, exploitation and abuse, discrimination, bullying, and intimidation.
58. **Improving the livelihoods of indigenous peoples and other marginalized groups.** Projects supported by IFAD (i) ensure ownership and access to the ancestral lands and territories of indigenous peoples; (ii) strengthen their institutions; (iii) ensure free, prior, and informed consent (FPIC); (iv) value indigenous knowledge systems; and (v) document and report the results of consultations with indigenous peoples and other marginalized groups. The FPIC will also apply to communities of non-indigenous peoples when the project's activities impact their access and land use rights.
59. **Promoting of appropriate agricultural and manufacturing processes.** Agricultural processes will be based on agroecological principles, the basis of sustainable agriculture, including traditional, indigenous, and climate-resilient technologies, as well as social technologies already involved in food production, integrated pest management, and the use of alternative and biological controls. This includes traditional, indigenous, and climate-resilient technologies, integrated pest management, and the use of biological controls. When the use of agrochemicals is necessary, projects will ensure (for example, through increased environmental awareness, farmer training, and better field extension services) that their selection, application, storage, and disposal are in accordance with international standards. IFAD will require customers to apply international standards, including those on safe and healthy working conditions, and establish and maintain a sound environment and social management systems.

60. **IFAD’s Environmental and Social Standards** comprise key requirements for the environmental and social sustainability of projects. The Standards are intended for the design team and for partners who have the final responsibility for the implementation of the project. They are based on the best practices of the United Nations, international financial institutions, and multilateral development banks. They should be consulted in full and cross-referenced as needed. The complete list of patterns is as follows ⁶³ (the patterns highlighted in blue are triggered by the project):

Table 1: IFAD socio-environmental standards triggered by the project and its objectives.

	Pattern	Objectives
<input checked="" type="checkbox"/>	Standard 1: Biodiversity conservation	<ul style="list-style-type: none"> ● Maintaining and conserving biodiversity. ● Ensure the fair and equitable distribution of the benefits of the use of genetic resources. ● Respect, preserve, maintain, and encourage the knowledge, innovations, and practices of indigenous peoples and local communities for the conservation and sustainable use of biodiversity and their habitual use of biological resources. ● Adopt a preventive approach to the conservation and management of natural resources to ensure opportunities for environmental and sustainable development.
<input checked="" type="checkbox"/>	Standard 2: Resource efficiency and pollution prevention	<ul style="list-style-type: none"> ● Avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides; ● Avoid or minimize project-related emissions of short and long-lived climate pollutants; ● Promote more sustainable use of resources, including energy, land and water; and Identify opportunities for improving resource efficiency.
<input type="checkbox"/>	Standard 3: Cultural heritage	The activities supported by the project are not expected to negatively affect cultural heritage (material or immaterial) specially those related to indigenous peoples and traditional communities. Furthermore, the procedures established for Free, Prior and Informed Consent will ensure that all project investments are screened by the communities at their inception ensuring that this type of impact is identified early and avoided.
<input checked="" type="checkbox"/>	Standard 4: Indigenous peoples	<ul style="list-style-type: none"> ● Support indigenous peoples in defining priorities and strategies for the exercise of their right to development. ● Ensure that each project is developed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC.

⁶³ https://www.ifad.org/documents/38711624/43547646/secap2021_01.pdf/31edfeff-f70c-67b0-994a-d0ec4630dd81?t=1635770346986.

		<ul style="list-style-type: none"> • Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project-supported activities in a culturally appropriate and inclusive manner. • Recognize and respect the rights of indigenous peoples to the lands, territories, waters, and other resources they have traditionally owned, used, or trusted.
<input checked="" type="checkbox"/>	Standard 5: Labor and working conditions	<ul style="list-style-type: none"> • Promote direct actions to foster decent rural employment. • Promoting, respecting, and realizing fundamental principles and rights: - Preventing discrimination and promoting equal opportunities for workers; - Support freedom of association and the right to collective bargaining; - Prevent the use of child labor and forced labor. • Protect and promote the safety and health of workers. • Ensure that projects comply with national labor and employment laws and international commitments. • Leave no one behind, protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young workers, migrant workers, informal economy workers, and workers with disabilities.
<input type="checkbox"/>	Standard 6: Community health and safety	There is no risk that the Project will _____ on physical, mental, nutritional or social health and safety of an individual, group or population.
<input type="checkbox"/>	Standard 7: physical and economic resettlement	There is no risk that Project interventions will cause physical resettlement of families or significant adverse economic impacts, especially for marginalized groups. The Project presents a solid targeting strategy and will promote positive social, physical, cultural and economic impacts, especially for marginalized groups
<input type="checkbox"/>	Standard 8: Financial intermediaries and direct investments	The project will not use financial intermediaries nor it will provide direct investments to beneficiaries
<input checked="" type="checkbox"/>	Standard 9: Climate change	<ul style="list-style-type: none"> • Ensure the alignment of IFAD-supported projects with nationally determined contributions (NDC) from countries and the objectives of the Paris Agreement and other international structures • Ensure that the proposed activities are selected and evaluated regarding climate change risks and the impact of possible disasters, including any impacts of the project on these risks. • Apply the mitigation hierarchy in the design of the project. • Strengthen the community resilience to address the risk of climate change impacts and climate-related disasters. • Increase the ability of communities to adapt to the adverse impacts of climate change and promote climate resilience and

		low GHG projects that do not negatively impact food production
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61. In general, vulnerable groups face barriers to participating in public consultation meetings. They may not understand the impacts of this project due to the language barrier (or feel inhibited due to their status in the community) and therefore may not always be able to freely understand and express their concerns and interests about PPF II. Some people, especially those with low literacy, as well as members of indigenous communities that do not dominate Portuguese, face communication challenges and may hinder their participation. To avoid this potential exclusion, in the FPIC process, indigenous peoples will need to be consulted in their own language whenever possible. The project should consider the limitations identified and ensure that all mapped interest groups, especially Project Affected Persons (PAP), are included and supported to overcome the limitations they face and participate in consultation processes.

POTENTIAL ADVERSE SOCIAL AND ENVIRONMENTAL IMPACTS

Environmental risks:

62. With regard to environmental risks, there are moderate risks related to: i) the possibility of increased encounters with wildlife as a result of the ecological restoration processes, which may create more favorable foraging niches for these species; ii) the possibility of introducing invasive alien species; iii) the acquisition of natural resources as inputs for the agroforestry activities supported by the Project; iv) the release of pollutants to the environment; v) the potential overexploitation of water resources as a result of the project’s investments in the water sector; vi) the acquisition of agrochemicals (pesticides and fertilizers) - although the agroecological approach proposed by the Project does not require this type of input, its use is quite common and part of the production strategies usually used by farmers; vii) the engagement in forestry areas and viii) support for sheep and goat farming, which can contribute to the common problem of overgrazing.

63. In addition to this ESCMP, the project will develop, as needed, specific Environmental, Social and Climate Management Plans (ESCMPs) to manage these risks, and will include measures to avoid the purchase of inputs that do not comply with standards relating to sustainably sourced natural resources and harmful agrochemicals. The plans will also provide guidance on the identification and assessment of all natural resources in the project areas, such as the existence of degraded areas and water sources that can be restored. All the measures for managing risks and impacts are well known and should not pose a challenge for state institutions, which have good experience in applying social and environmental safeguards in projects with external funding, as well as having a comprehensive legal and institutional framework for dealing with all the issues mentioned above.

64. The project area covers a region that concentrates extreme richness of unique species and is among the most threatened in Brazil. The Caatinga remnants, especially those in protected areas, play a strategic role in providing environmental services and conserving biodiversity, including numerous endemic and endangered species of flora and fauna. Agroecological practices and the restoration of degraded areas, as foreseen in the project, will have a positive impact on the conservation of local agrobiodiversity, promoting the use of agricultural practices as alternatives to the use of fire and strengthening of production chains that value Caatinga products, such as beekeeping of native species.

Social risks:

65. With regard to social risks, there are moderate risks related to the presence of indigenous peoples and traditional communities with their own knowledge and ways of life. A Free, Prior and Informed Consent Implementation Plan (FPIC Implementation Plan) to implement and strengthen FPIC processes, an Indigenous Peoples Plan Framework, as well as processes for the effective participation of this target group in the planning and execution of Project activities have been developed. The FPIC will be an integral part of the process of building project activities with indigenous peoples and traditional communities. TA teams will be trained to work with traditional peoples, respecting and valuing their practices and forms of social organization.
66. The project applies a gender, intercultural, rural youth, nutrition, and indigenous peoples approach with specific components included throughout the project cycle, contributing to reduce or eliminate barriers, limitations, and potentialities of women, young people, traditional populations, and indigenous populations, through differentiated strategies and positive actions measured in each component. This ensures their economic empowerment, substantive participation, and voice in the decisions of each Local Development Plan (PD), including their access to financial and non-financial services- and specific tools to strengthen their productivity, associative processes, and business - and finally their well-being and quality of life.
67. Although gender-based violence is structural, project activities will promote gender equity, women empowerment, and have positive effects on the physical, mental, and social well-being of individuals or groups, thereby ensuring that the project does not lead to gender-based violence (GBV) . To prevent GBV, the project will promote training and awareness-raising actions on GBV, as well as PPF II will establish strategic alliances with local groups, institutions, and organizations that can provide the support that girls and women need. It will also be ensured that the complaints and whistleblower mechanism include specific channels to deal with these issues and flows that ensure whistleblower protection. In the specific case of sexual harassment, abuse, and exploitation (SEA), IFAD’s policies on prevention and combat will be followed⁶⁴. The Project will also develop a Gender, Youth, Social Inclusion and Nutrition Strategy, which will contribute to mitigating any risks related to the inclusion, benefit and empowerment of the target groups and to guaranteeing their quality participation and empowerment.

Climate risks:

68. The main potential climate risk for the projection region is water scarcity in the prolonged summer (dry) period, which has a direct impact on land degradation and crop yields. This generates conflicts, reduces production, and puts the food security of beneficiaries at risk. In addition, degradation and deforestation increase runoff and erosion, reducing the soil’s supporting capacity.
69. Due to the above, and the proposed “substantial” climate risk, the project conducted a Targeted Adaptation Assessment (TAA), which ranks the best adaptation measures for different Project components. The TAA will be the main project instrument to adapt to climate change by reducing climate risks with resilience and climate management measures, contributing to the adoption of good practices and the use of sustainable, environmentally friendly, and climate-friendly technologies.
70. In the Local Rural Development Plans (PDs), the Project will encourage good practices of adaptation to climate change and the management of natural resources. Project technicians will conduct an in-depth climate vulnerability assessment during the planning of each PD, identifying potential high-risk areas where the combination of environmental degradation and expected climate change could result in increased potential for

⁶⁴ [IFAD policy to preventing and responding to sexual harassment, sexual exploitation, and abuse.](#)

droughts, fires, or other climate-related impacts. These assessments should support the design of PDs regarding risk mitigation measures that may involve support for Integrated Fire Management and agroecological/agroforestry practices that reduce the vulnerability of agroecosystems to climate variability.

71. Using the ESCMP as a tool, all PDs should incorporate into its content structure a chapter called "Adaptation and mitigation to climate change", which will contain information related to climate threats, climate risks, exposure, level of vulnerability, and adaptation measures to be implemented (risk management and climate resilience). This chapter will be developed considering the information generated in the Targeted Adaptation Assessment (TAA), the development of diagnostic instruments at the local level, the need for environmental and operating licenses, and the production process discussed and agreed with the protagonists of the project.
72. PPF II will promote the integration of sectoral policies between state and municipal bodies for the development of plans and actions that promote greater climate resilience. The project will support the Environmental Regularization Program to guarantee the maintenance, recovery, and expansion of the Legal Reserve and APP to mitigate the effects of climate change, deforestation, and loss of biodiversity in individual and collective rural properties.

MITIGATION MEASURES

73. **Stakeholder Engagement:** PPF II is being designed and will be implemented with the active participation of communities, civil society, state, and local governments. This principle was applied at the design stage but will be conducted throughout the entire project cycle on a significant and regular basis. Stakeholders will be mobilized considering the most appropriate means, depending on their different interests and circumstances, to ensure the effective engagement of all affected or potentially impacted parties. Information on the potential social and environmental risks and effects of PPF II must be made available in a timely manner, be complete, accessible, and appropriate to the different stakeholders. Whenever the project intends to involve beneficiaries in general, separate meetings or discussion groups for women will also be organized, with the understanding that in mixed groups, although women are present, they may not feel comfortable expressing themselves, especially on sensitive topics, such as GBV.
74. The table below indicates the proposed activities in each component, their potential adverse impacts, and their mitigation measures:

Table 2: Risk and potential adverse impacts of the project and its mitigation measures.

Component/ subcomponent	Planned Activities	Risks/Potential adverse impacts	Mitigation measures
1. Sustainable rural development Subcomponent 1.1 - Strengthening Family Farming and Overcoming Hunger and Mitigating the Effects of Poverty	Develop and implement Local Rural Development Plans (PDs), for family and/or collective use, grouping up to 4 surrounding communities. The PDs contain financial resources for implementation of physical investments (production, inputs, machinery, etc.), in addition to the provision of ATER for 2 years to support all capacity strengthening, social inclusion and technical support activities related to the preparation, implementation and accountability of the PD. The subcomponent will carry out specific training actions through workshops, on the modalities and conditions of access to public policies for family farmers. In addition, the subcomponent will also finance land and environmental regularization of families in situations of greater vulnerability;	<ul style="list-style-type: none"> ● Exclusion of vulnerable groups from participating in the planning and execution of project activities. ● Capturing the benefits of the project by the elite ● Introduction of invasive alien species (e.g. <i>Brachiaria spp</i>) ● Inappropriate use of pesticides ● Inadequate working conditions (e.g., lack of PPE). ● Excessive removal of genetic material for seedling production. ● Conflict of use in the cases of seeds also used for handicrafts ● Sociocultural inadequacy of the activity. ● Inadequate technical assistance to the sociocultural system of traditional peoples. ● Production of waste, effluents, and overuse of scarce water resources in processing industries supported by the project. 	<ul style="list-style-type: none"> ● Stakeholder Participation in Project definition. ● Application of the Principle of Free, Prior, and Informed Consultation (FPIC) ● Application of the Complaints Mechanism. ● The project follows a focusing strategy that identifies and prioritizes vulnerable groups to perform specific activities that meet their demands and interests ● Strong criteria, monitoring and evaluation measures of focus strategies on gender, youth, and social inclusion ● Promote compliance with national labor laws, ensuring decent, safe, and healthy working conditions. ● Work responsibilities will be distributed in such a way as to avoid overloading certain individuals/groups, such as women. ● Training and awareness actions on the theme of GBV

		<ul style="list-style-type: none"> • Installation of monocultures (vulnerability to market prices, pests, diseases, climate) • Lack of processing facilities or inputs nearby the Project activity • Droughts 	<ul style="list-style-type: none"> • Complaint and reporting mechanisms include specific channels to deal with GBV and ensure whistleblower protection. In the specific case of harassment, abuse, and sexual exploitation. <ul style="list-style-type: none"> • Mapping of the species of interest and their different uses • Offer indigenous/anthropological training for technical teams • Develop specific methodologies and strategies for traditional peoples • Implementation of technically and financially feasible measures to ensure the efficient use of raw materials and to mitigate the impacts in production of waste and effluents. • Adoption of climate smart agricultural, husbandry and forestry practices to ensure the sustainability and resilience of project investments. These practices will be identified during project investment design phase and monitored in the respective ESMP. • Mapping of project activities and installation of processing plants nearby
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		<ul style="list-style-type: none"> ● Use native species lists and invasive species list to avoid introduction of invasive species. ● Development of seed banks, botanical gardens and promotion of germplasm exchanges between farmers. ● Promote and add value to crops and products from the local agrobiodiversity (caatinga) ● Diversification of plant breeds and crops (multicrop / intercrop systems). ● Integrated Pest Management (IPM) with practices geared toward increasing agroecosystem structural and functional diversity (habitat manipulation to foster predator-prey equilibrium, allelopathy, pests population and damage monitoring, soil fertility management) ● Build Technical Assistance (ATER) capacity for delivering IPM and Agroecological practices to family farmers. ● Manual weed control and mechanized mowing ● Use of bioinputs such as biocaldas, composts, and biochemicals. ● Restoration of water sources, Permanent Preservation Areas (APPs) and other degraded areas ● Water storage.
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<p>Subcomponent 1.2 - Strengthening the Marketing and Processing of Family Farming Products</p>	<p>Strengthen processing units to add value to family farming products, promoting better marketing. Investments will be made to adapt/renovate physical structures, in addition to the acquisition of machinery for two different types of units: i) medium/large processing units; and ii) Small units. In both cases, Specialized Technical Consultancy (CTE) will be provided to strengthen management capabilities (financial, administrative and social), marketing and to improve the production and marketing practices of the enterprises;</p>	<ul style="list-style-type: none"> ● Exclusion of vulnerable groups in the participation of planning and execution of project activities ● Not obtaining environmental or sanitary licenses for planning, installation, and operation of collective processing units. ● Risk that the Project will result in abusive labor practices (e.g., forced or child labor), , discriminatory and unsafe/unhealthy working conditions for Project employees, including third parties and large suppliers. 	<ul style="list-style-type: none"> ● Look for climate resistant crops or varieties that are more suitable to warmer climates, including improved varieties developed by Embrapa and native / traditional crops. ● Seek partnerships with municipalities and SEMA to facilitate the licensing process ● Stakeholder Participation in Project definition. ● Application of the Principle of Free, Prior, and Informed Consultation (FPIC) ● Application of the Complaints Mechanism. ● The project follows a focus strategy that identifies and prioritizes vulnerable groups in order to carry out specific activities that meet their demands and interests ● Strong criteria for focusing and strengthening monitoring and evaluation measures of focus strategies, gender, youth, and social inclusion ● Promote compliance with national labor laws, ensuring decent, safe, and healthy conditions. ● Work responsibilities will be distributed in such a way as to avoid burdening certain
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			<p>individuals/groups, such as women.</p> <ul style="list-style-type: none"> • Training and awareness actions on the theme of GBV • Complaint and reporting mechanisms include specific channels to deal with GBV and ensure whistleblower protection. In the specific case of harassment, abuse, and sexual exploitation. • Offer indigenist/anthropological training for technical teams • Develop specific methodologies and strategies for traditional peoples. • All contracts with service providers, suppliers, and third parties to be financed with IFAD funds will include provisions prohibiting child labor and promoting decent working conditions. Reporting mechanisms will be established, assuring whistleblower protection. • The Project will recruit a gender and segmentation expert. A gender equality strategy and action plan will also be developed, examining measures to prevent and combat gender-based violence.
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<p>Subcomponent 1.3 -Gender, Youth and Nutrition</p>	<p>This subcomponent will aim to promote the empowerment of women and young people, as well as improving the nutrition of beneficiary families. The activities of this subcomponent will work with three of the project's transversal themes, strengthening and supporting the transversalization of themes related to gender, youth and nutrition in all components of the Project. Among the women's empowerment activities, there are gender training aimed at beneficiary communities, the implementation and monitoring of the agroecological booklet methodology and circle activities for children, which allow greater participation of beneficiary women in Project activities. Activities aimed at young people include planning festivals and youth caravans, the Young Communicators program, training young leaders, among others. Nutrition activities focus on exchanges and training, in particular, through the renewal of the partnership with the Social School of Gastronomy. This will allow the transmission of knowledge about culinary practices and gastronomic culture, and will respond to the technical assistance needs of families, women, young people and traditional peoples and communities in terms of promoting their products, in particular Non- Conventional Edible Plants. (PANCS). The training will also include modules focused on maternal and child health and reproductive health.</p>	<ul style="list-style-type: none"> ● Exclusion of vulnerable groups from participating in the planning and execution of project activities. ● Capturing the benefits of the project by the elite ● Sociocultural inadequacy of the activity. 	<ul style="list-style-type: none"> ● Stakeholder Participation in Project definition. ● Application of the Principle of Free, Prior, and Informed Consultation (FPIC) ● Application of the Complaints Mechanism. ● The project follows a focusing strategy that identifies and prioritizes vulnerable groups to perform specific activities that meet their demands and interests ● Strong criteria, monitoring and evaluation measures of focus strategies on gender, youth, and social inclusion ● Work responsibilities will be distributed in such a way as to avoid burdening certain individuals/groups, such as women. ● Training and awareness actions on the theme of GBV ● Complaint and reporting mechanisms include specific channels to deal with GBV and ensure whistleblower protection. In the specific case of harassment, abuse, and sexual exploitation. ● Offer indigenist/anthropological training for technical teams
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			<ul style="list-style-type: none"> • Develop specific methodologies and strategies for traditional peoples. • The Project will recruit a gender and segmentation expert. A gender equality strategy and action plan will also be developed, examining measures to prevent and combat gender-based violence.
Subcomponent 2.1 - Basic Rural Community Sanitation	<p>In this subcomponent, basic rural sanitation will be planned and implemented at the community level, improving the environmental conditions and the quality of life of a group of families, considering collective solutions for access to water and sanitation, reuse of gray water, in addition to providing adequate disposal and reuse of a portion of the waste generated by these communities.</p>	<ul style="list-style-type: none"> • Exclusion of vulnerable groups in the participation of planning and execution of project activities. • Not obtaining environmental or sanitary permits for planning, installation, and operation of the infrastructure. • Capturing the benefits of the project by the elite • Sociocultural inadequacy of the activity. • Abusive labor practices (e.g., forced or child labor), discriminatory and unsafe/unhealthy working conditions for Project employees, including third parties and large suppliers. 	<ul style="list-style-type: none"> • Implementation of the Stakeholder Participation Plan. • Application of the Principle of Free, Prior, and Informed Consultation (FPIC) • Application of the Complaints Mechanism. • The project follows a focusing strategy that identifies and prioritizes vulnerable groups to perform specific activities that meet their demands and interests • Strong criteria, monitoring and evaluation measures of focus strategies on gender, youth, and social inclusion • Promote compliance with national labor laws, ensuring decent, safe, and healthy working conditions. • Work responsibilities will be distributed in such a way as to avoid burdening certain
Subcomponent 2.2 - Social Technology for access to water and Production Support	<p>This subcomponent aims to implement social technologies for capturing rainwater for human consumption and production (production cisterns, family reuse systems, trench dams, small dams, etc.), in addition to the implementation of infrastructure for sanitary solutions (such as sanitary modules), adhering to the sustainable use and preservation of natural resources (biogas and eco-efficient stoves). These technologies and innovations are alternatives that guarantee food and nutritional security for families, in addition to being solutions with high social impact and low implementation costs. The subcomponent will also provide resources to implement and scale the innovative solutions generated by local micro entrepreneurs and public agencies.</p>		

		<ul style="list-style-type: none"> • Cisterns and other structures can crack during long periods of drought 	<p>individuals/groups, such as women.</p> <ul style="list-style-type: none"> • Training and awareness actions on the theme of GBV • Complaint and reporting mechanisms include specific channels to deal with GBV and ensure whistleblower protection. In the specific case of harassment, abuse, and sexual exploitation. • Offer indigenist /anthropological training for technical teams • Develop specific methodologies and strategies for traditional peoples. • All contracts with service providers, suppliers, and third parties to be financed with IFAD funds will include provisions prohibiting child labor and promoting decent working conditions. Reporting mechanisms will be established, assuring whistleblower protection. • The Project will recruit a gender and segmentation expert. A gender equality strategy and action plan will also be developed, examining measures to prevent and combat gender-based violence.
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			<ul style="list-style-type: none"> Select materials that are resistant to cracking and keep them wet
3. Knowledge Management for Adaptation to Climate Change (INOVA CLIMA)			
Subcomponent 3.1 - Capacity development of farmers and Technical Assistance (TA) teams	<p>Aims to promote the training of small multiplier producers and TA teams, with the aim of acquiring greater knowledge in areas related to climate-resilient agriculture. This includes a focus on issues such as climate change, desertification, nutrition, biodiversity and food security, with a view to influencing public policies;</p>	<ul style="list-style-type: none"> Exclusion of vulnerable groups in the participation of planning and execution of project activities. Not obtaining environmental or sanitary permits for planning, installation, and operation of the infrastructure. Abusive labor practices (e.g., forced or child labor), discriminatory and unsafe/unhealthy working conditions for Project employees, including third parties and large suppliers. Capturing the benefits of the project by the elite Sociocultural inadequacy of the activity. 	<ul style="list-style-type: none"> Implementation of the Stakeholder Participation Plan. Application of the Principle of Free, Prior, and Informed Consultation (FPIC) Application of the Complaints Mechanism. The project follows a focusing strategy that identifies and prioritizes vulnerable groups to perform specific activities that meet their demands and interests Strong criteria, monitoring and evaluation measures of focus strategies on gender, youth, and social inclusion Promote compliance with national labor laws, ensuring decent, safe, and healthy working conditions. Work responsibilities will be distributed in such a way as to avoid burdening certain individuals/groups, such as women. Training and awareness actions on the theme of GBV Complaint and reporting mechanisms include specific
Subcomponent 3.2 - Promotion of environmental and climate education with a gender focus in rural schools:	<p>Training will be carried out for young people and teachers in areas related to climate-resilient agriculture with an agroecological basis, sustainable management of natural resources, such as water and biodiversity, as well as in the production of seedlings and reforestation;</p>		
Subcomponent 3.3 - Promotion of technological research and implementation of pilot projects:	<p>Economically accessible and viable pilot projects, with potential for large-scale replication. These projects will seek to use renewable energy, reduce the use of firewood and biomass, as well as improve the quality of water for human consumption, among other actions;</p>		
Subcomponent 3.4 - Knowledge Management and Triangular South-South Cooperation:	<p>It will focus on the systematization, documentation and dissemination of knowledge, experiences, innovations, technologies and good practices developed and tested, with the aim of making them accessible, with a priority audience profile. In addition, studies, research and surveys will be carried out to generate more knowledge in the key areas of the project;</p>		
Subcomponent 3.5 - Strengthening	<p>This subcomponent aims to strengthen the capacity of the UGP in the implementation and monitoring of activities financed by Spanish Cooperation. The</p>		

<p>the UGP for implementation and monitoring of activities:</p>	<p>expected functions include: i) Assistance to the UGP in the conception and planning of activities, as well as in the preparation of the acquisition plan; ii) Support to the UGP in monitoring and monitoring project activities and, including components related to knowledge management and SSTC. iii) Technical assistance to the SDA in the design of innovation policies and programs in the agricultural sector based on the Spanish experience; iv) Support for the transfer of knowledge and good practices from Spain in the field of sustainable agriculture and water management to the State of Ceará; and v) Coordination with the Spanish Cooperation Office for Brazil, based in Montevideo, of the triangular cooperation actions carried out within the scope of the project.</p>		<p>channels to deal with GBV and ensure whistleblower protection. In the specific case of harassment, abuse, and sexual exploitation.</p> <ul style="list-style-type: none"> • Offer indigenous /anthropological training for technical teams • Develop specific methodologies and strategies for traditional peoples. • All contracts with service providers, suppliers, and third parties to be financed with IFAD funds will include provisions prohibiting child labor and promoting decent working conditions. Reporting mechanisms will be established, assuring whistleblower protection. • The Project will recruit a gender and segmentation expert. A gender equality strategy and action plan will also be developed, examining measures to prevent and combat gender-based violence.
<p>4. Project Management and M&E</p>			
<p>Subcomponent 4.1 - Project Management, Monitoring and Evaluation (M&E)</p>	<p>A Project Management Unit (UGP) will be established at the Secretariat of Agrarian Development (SDA), and will have the responsibility for implementing the project actions, in addition to carrying out technical coordination, management of socio-environmental</p>	<p>-</p>	<ul style="list-style-type: none"> • Application of the Complaints Mechanism.



	<p>safeguards , financial management, audits and M&A. The presence of the project in the field will be guaranteed through a technical team allocated in some EMATERCE offices.</p>		
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ESCMP IMPLEMENTATION PLAN

75. The Environmental, Social and Climate Management Plan of the overall Project will be implemented by the SDA, with the support of the PMU and implementation partners that will be responsible for ensuring the adherence of the project to the policies of IFAD and the applicable regulatory framework. The PMU will be responsible for empowering the technicians working in the preparation of the PD with regard to the implementation of the ESCMP (PGASC).
76. The preparation of specific Environmental and Social Management Plans (PGAS) (see model in Annex 4) will take place concomitantly with the preparation of the Local Development Plans (PDs). Such plans will be monitored by the PMU, and there will be social control by civil society, and the results of this monitoring included in the project progress reports indicating any non-conformities found and the respective corrective measures agreed and complied with. For activities performed outside the scope of the PD (especially in component 3), a specific checklist will be applied in order to ensure compliance with the aspects of participation and inclusion of activities.
77. It will be prepared from a specific/individual Environmental and Social Management Plan for each PD, which should be prepared and attached to the PD according to the following structure.

SOCIAL AND ENVIRONMENTAL VERIFICATION FORM FOR PREPARING ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS (ESMP)

78. A social and environmental verification form (see Annex 2) will be completed by the team responsible for preparing the PD prior to their implementation. The completion of the form is a requirement for the implementation of activities of components 1, 2, and 3 that have the potential to trigger the safeguards. The application of this form serves as a filter for the activities of the project, such as the implementation of good practices in productive areas, to verify and trigger or not the safeguards for (i) Biodiversity Conservation; (ii) Resource efficiency and pollution prevention; (iii) Indigenous Peoples; (iv) Labor conditions and safety; (v) Community health and safety and (vi) Climate change.
79. Proposals that present activities with low or moderate environmental impact forecasts, which can be mitigated, should present a description of the mitigating measures incorporated into the plan for the execution of the activities. The project does not provide for the financing of activities with a forecast of diffuse, comprehensive, and/or strong-intensity environmental impacts. Proposals that present substantial or high risk will not be considered for funding under the project.
80. Before application of the form, it is mandatory that the TA personnel responsible for the application be trained on Agroecological Practices (Agroecological AT) and be able to propose technical solutions to be implemented by the PD.

ESCMP MONITORING PLAN

81. The monitoring of safeguards implementation will be concomitant with the supervision and monitoring of project execution and, therefore, with the same frequency and periodicity and carried out by the same teams. The PMU team should therefore have focal points for environmental and social safeguards. Such monitoring should be carried out by the PMU and verified by the Project’s governance team.
82. Those responsible for monitoring safeguards in the PMU should ensure that all activities adhere to project safeguards. The monitoring table of the ESCMP (PGASC) implementation below indicates the items that should be monitored by the PMU as part of the implementation of all components.
83. It should be noted that there is no Environmental and Social Management Plan for the activities of component 3. Notwithstanding the issues indicated in the table should be observed for the activities of these components – in component 3, for example, it should be observed whether land research activities generated some violence (including gender-based violence), if there was any form of discrimination or environmental impact:
84. For the activities inserted in the Development Plans (PDs) and that have a PGAS (ESMP), the monitoring table should be used to guide the assessment of the implementation situation.

Table 3: Monitoring that will be observed by the PMU when monitoring the implementation of the ESCMP.

Item to be monitored/observed by PMU in monitoring the implementation of ESCMP	Means of verification/sources of information
Components 1 and 2	
1. Was ESMP done?	PD
2. Have social and environmental impacts been adequately analyzed?	ESMP
3. Could any of the negative impacts be avoided with agroecological practices	ESMP
4. Are the proposed mitigation measures appropriate to the remaining impacts?	ESMP
5. Was there any gap in impact analysis?	ESMP/Field Visits
6. Was there training in safeguards for the teams (of the municipality, state, association, or cooperative) responsible for preparing and implementing the PGAS?	PD
7. Are the mitigation measures proposed in ESMP being properly implemented?	ESMP/Field Visits
8. What are the main problems found in the implementation of ESMP (PGAS)?	ESMP
9. What are the proposed measures to solve systemic problems of implementation of ESMP (PGAS)	
10. For activities with indigenous peoples and quilombolas	

11. Was a FPIC executed?	PPPI
12. Are FPIC agreements being implemented?	PD
13. Have there been complaints of any kind about FPIC (CLPI) and/or project activities?	Complaints/Field missions
14. How were the complaints handled?	Complaints Mechanism
15. Are there complaints of discrimination (of race, age, gender, etc.)?	Complaints Mechanism / Field missions
16. How were these complaints/reports handled?	Complaints Mechanism
Components 3 and 4	
17. Has the complaints mechanism been structured?	SDA/PMU
18. Is the complaints mechanism fully operational (has adequate access channels and staff)?	Complaints Mechanism
19. Are there complaints of violence arising from project activities (in particular, violence against beneficiaries, violence against women, and against indigenous peoples)?	Complaints Mechanism
20. How were they resolved?	Complaints Mechanism
21. Are there complaints of discrimination arising from project activities (in particular, violence against women and indigenous peoples)?	Complaints Mechanism / Field Visits
22. Other complaints?	Complaints Mechanism
23. What complaints were?	Complaints Mechanism
24. How were they resolved?	Complaints Mechanism
25. Was there training in safeguards for the teams (of the municipality, state, association, or cooperative) responsible for implementing the activities of the Project?	PD/field visits

IN CASE OF PENDING ON ANY OF THE ITEMS LISTED ABOVE, CORRECTIVE MEASURES MUST BE DEFINED, AND DEADLINES AND RESPONSIBILITIES FOR THEIR RESOLUTION MUST BE DEFINED!

ESCMP Matrix

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
<p>Limitations on family farmers' access to services, technologies, and resources</p>	<ul style="list-style-type: none"> - Provide technical assistance for the agroecological transition of production systems. - Providing inputs, financial and productive resources and improving access to natural resources. - Support for family farmers' access to public policies such as cisterns - Promoting market access and developing food supply capacity for the PAA and PNAE - Strengthening rural organizations 	<p>Promotion and dissemination of the project through a variety of media with inclusive messages</p>	<ul style="list-style-type: none"> - SDA - Social movements working with family farming 	<ul style="list-style-type: none"> - Photographic and video records of activities, events - Minutes of meetings and agreements 	<p>Every six months</p>	<p>costs are included in the COSTAB extension services and goods to be purchased under the sub-projects</p>

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
<p>Gaps in the inclusion of rural women</p>	<ul style="list-style-type: none"> - Train TA teams in gender issues to meet their specific demands. - Promote women's participation and voice in socio-economic and environmental planning and natural resource management. - Select techniques and technologies that are suitable for use by women. - Providing inputs, financial and productive resources and improving women's access to natural resources. - M&E of inclusive participation of at least 50% of rural women 	<ul style="list-style-type: none"> - Articulation with institutional actors linked to rural women - Promotion and dissemination of the project through a variety of media with gender inclusive messages 	<ul style="list-style-type: none"> - SDA - Articulation with institutional actors linked to gender issues, such as women's movements 	<ul style="list-style-type: none"> - Photographic and video recordings of activities, events, and meetings with rural women - Minutes of meetings and agreements with rural women 	<p>Every six months</p>	<p>costs are included in the COSTAB extension services and goods to be purchased under the sub-projects</p>

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
<p>Gaps in the inclusion of rural youth</p>	<ul style="list-style-type: none"> - Promoting the participation and voice of young people in socio-economic and environmental planning and natural resource management. - Provision of inputs, financial and productive resources, and better access to natural resources for young people - Offer trainings and workshops. - Promoting the education of rural youth - Supporting innovation and entrepreneurship among young people 	<ul style="list-style-type: none"> - Articulation with institutional actors linked to rural youth - Promotion and dissemination of the project through a variety of media with inclusive messages for young people 	<ul style="list-style-type: none"> - Rural education institutions, such as Family Farming Schools - Articulation with institutional actors linked to the youth issue 	<ul style="list-style-type: none"> - Photographic and video recordings of activities, events, and meetings with rural young people - Minutes of meetings and agreements with rural youth 	<p>Every six months</p>	<p>costs are included in the COSTAB extension services and goods to be purchased under the sub-projects</p>

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
	<ul style="list-style-type: none"> - M&E of inclusive participation of at least 15% of rural youth 					
Inclusion gaps for traditional peoples and communities	<ul style="list-style-type: none"> - Promote Free, Prior and Informed Consent processes; - Respect the heritage, cultural identity, and ways of life of traditional peoples and communities. - Monitoring and evaluation of the inclusive participation of at least 2% of people in PCTs. - Implementation of sensitization training for AT professionals on issues of race and ethnicity, with a focus on 	<ul style="list-style-type: none"> - Promotion and dissemination of the project among traditional peoples and communities in the project area - Ensure that the language of project materials and media is accessible and supportive - Contact with organizations and movements representing PCTs 	<ul style="list-style-type: none"> - SDA - Partner institutions working on the rights of indigenous peoples and traditional communities 	<ul style="list-style-type: none"> - Report on the implementation of FPIC - Photographic and video records of activities, events, and meetings with PCTs 	<p>Every six months</p>	<p>costs are included in the COSTAB extension services and goods to be purchased under the sub-projects</p>

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
Lack of water for production and risk of droughts and other extreme weather events	<p>methodological approaches</p> <ul style="list-style-type: none"> - Promote partnerships with the MDS cistern program and others to improve access to water for production. - Diagnosis of environmental and climate risks and opportunities. - Promoting diversified production systems that are resilient to the semi-arid context and climate change - Promoting efficient water use practices. - Promoting crops and animals 	<ul style="list-style-type: none"> - Inclusion of these themes in the training of ATER technicians - Inclusion of these themes in ATER work with communities - Dissemination of innovations and research on these topics among technicians and communities 	<ul style="list-style-type: none"> - SDA - SRH/COGE RH - Other leading partners in agroecology and coexistence with the semi-arid region (civil society and educational research organizations) 	<ul style="list-style-type: none"> - Training materials - Training agenda 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
Soil degradation and salinization	<p>adapted to semi-arid conditions.</p> <ul style="list-style-type: none"> - Promoting agroecological soil conservation practices - Ensure reasonable irrigation to avoid soil salinization - Regular soil evaluations using low-cost and accessible methods 	<ul style="list-style-type: none"> - Inclusion of these themes in the training of ATER technicians - Inclusion of these themes in ATER work with communities 	<ul style="list-style-type: none"> - SDA - EMATERCE 	<ul style="list-style-type: none"> - Training materials - Training agenda 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects
Risk of introducing invasive alien species	<ul style="list-style-type: none"> - Identify and respect the lists of invasive exotic species of state environmental institutions or research centers 	<ul style="list-style-type: none"> - Training technicians on invasive alien species 	SDA SEMA	<ul style="list-style-type: none"> - Regular assessment by the Environment and Climate Change Safeguards Specialist - Evaluation with each purchase 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation phase	Means of verification (Monitoring and reporting)	Check frequency	Cost estimate
Procurement of natural resource materials	<ul style="list-style-type: none"> The extraction and transport of all these materials are subject to federal and state licenses, which overall well enforced. 	<ul style="list-style-type: none"> The project has prepared SEP and GRM both of which address the risk of insufficient consultations 	SDA	<ul style="list-style-type: none"> Regular project reporting 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects
Risk of inappropriate use of agrochemicals	Guide extension workers and farmers on integrated pest management methods and the proper use of fertilizers (promotion of bio-inputs or rock-cutting) and pesticides.	Dissemination and training in integrated pest management and soil fertility.	SDA EMATERCE	<ul style="list-style-type: none"> Training materials Training agenda 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects
Risk of wildlife encounters	Educate extension workers and farmers about this risk and	Dissemination and training in	SEMA	<ul style="list-style-type: none"> Training materials Training agenda 	Every six months	costs are included in the

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
	promote measures to help biodiversity live and recover.	wildlife-friendly practices.				COSTAB extension services and goods to be purchased under the sub-projects
Release of pollutants to the environment	Establish procedures to avoid or provide adequate treatment to effluents (mostly wastewater, barks, and smoke) from small scale agricultural products processing facilities (in line with state and federal standards and regulations)	Dissemination and training on standards and legal requirements in effluent treatment (e.g., recycling, treatment, adequate disposal).	SDA EMATERCE	<ul style="list-style-type: none"> - Training materials - Training agenda - Field visit reports. 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation phase	Means of verification (Monitoring and reporting)	Check frequency	Cost estimate
Engagement in areas of forestry	Ensure that all project activities in forest restoration comply with federal standards (Law on the Protection of Native Vegetation and National Policy for the Recovery of Native Vegetation - PROVEG).	Dissemination and training on standards and legal requirements in forest restoration.	SDA EMATERCE SEMACE	<ul style="list-style-type: none"> - Training materials - Training agenda - Field visit reports. 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects
Risks related to livestock	Define a threshold of herd size to ensure that projects investments are direct only to small-scale livestock farms.	Disseminate best practices in pasture management and treatment of effluents in semi-intensive production systems.	SDA EMATERCE	<ul style="list-style-type: none"> - Training materials - Training agenda - Field visit reports 	Every six months	costs are included in the COSTAB extension services and goods to be purchased under the sub-projects
Exploitation of water resources	Ground water extraction is well regulated and the	The project has prepared SEP and GRM, both of	SDA	<ul style="list-style-type: none"> - Regular project reporting 	Every six months	costs are included in the

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
	drilling of extraction wells requires a state license from the state's water authority. The issuance of those licenses will be monitored by the project.	which address the risk of insufficient consultations				COSTAB extension services and goods to be purchased under the sub-projects
Working conditions that do not meet national labour laws or international commitments	Awareness raising on national labour laws requirements and sanctions for noncompliance.	Dissemination and training on labour standards and legal requirements.	SDA EMATERCE	<ul style="list-style-type: none"> - Training materials - Training agenda - Field visit reports. 	Every six months	
Child labour	Awareness raising on national child labour laws (Federal Law 8069/1990 - Statute of the Child and Adolescent and Decree 5452/1943, National Labour Law) requirements and	Dissemination and training on child labour standards and legal requirements.	SDA EMATERCE	<ul style="list-style-type: none"> - Training materials - Training agenda - Field visit reports. 	Every six months	

Environmental/social and climate impacts	Recommended mitigation/improvement measures	Public consultation activities	Responsible institution in the implementation on phase	Means of verification and reporting (Monitoring and reporting)	Check frequency	Cost estimate
	sanctions for noncompliance.					

ANNEX 1 - SUMMARY OF THE PERTINENT LEGAL FRAMEWORK

Table 4: Project's legal framework

Legal Framework	Description
Federal Constitution (1988)	<p>In the FEDERAL CONSTITUTION OF BRAZIL, the participation of society in defense of the environment has gained importance, as provided for in its art 225: Art. 225. Everyone has the right to an ecologically balanced environment, a good for common use by the people and essential to a healthy quality of life, imposing on the public authorities and the community the duty to defend and preserve it for present and future generations</p> <p>Due to its relevance to the themes dealt with here, I think we should also include:</p> <p>Art. 5. Everyone is equal before the law, without distinction of any kind, guaranteeing Brazilians and foreigners residing in the country the inviolability of the right to life, liberty, equality, security, and property:</p> <p>XXII - the property right is guaranteed.</p> <p>XXXIII - everyone has the right to receive from public bodies information of their private interest, or of collective or general interest, which will be provided within the term of the law, under penalty of liability, except for those whose secrecy is essential to the security of society and the State</p>
National Environmental Policy (1981)	<p>It is a principle of the National Environmental Policy (PNMA) to educate the community, aiming to enable it to actively participate in defense of the environment (Law No. 6,938/81, art. 2, X).</p> <p>The PNMA created the largest participatory collegiate on the environment, in which different sectors of society and government interact to regulate environmental policy, the National Environment Council, CONAMA. The PNMA created the largest participatory collegiate on the environment, in which different sectors of society and government interact to regulate environmental policy, the National Environment Council, CONAMA and ii) to deliberate, within the scope of its competence, on norms and standards compatible with the environment and with a healthy quality of life.</p>

<p>National Environmental Education Policy (1999)</p>	<p>Art. 4 - Principles: I - the humanist, holistic, democratic, and participatory approach; II - the conception of the environment in its entirety, considering the interdependence between the natural, socio-economic and cultural environment, from the standpoint of sustainability.</p> <p>Art. 5 - Objectives: II - ensuring the democratization of environmental information; III - the encouragement and strengthening of a critical awareness of environmental and social issues; IV - the encouragement of individual and collective participation, permanent and responsible, in preserving the balance of the environment, understanding the defense of environmental quality as an inseparable value from the exercise of citizenship.</p>
<p>National System of Conservation Units - SNUC (2000)</p> <p>Law No. 9,985/2000 and Decree No. 4,340/2002</p>	<p>The Law establishing the SNUC establishes several guidelines for participatory management in Conservation Units, among which we highlight the following guidelines: Art. 5° III - ensure the effective participation of local populations in the creation, implementation, and management of Conservation Units. IV - seek the support and cooperation of non-governmental organizations, private organizations, and individuals for the development of studies, scientific research, environmental education practices, leisure activities and ecological tourism, monitoring, maintenance, and other management activities of the Units Conservation. V- encourage local populations and private organizations to establish and manage Protected Areas.</p>
<p>National Strategic Plan for Protected Areas (2006)</p> <p>PNAP (Decree No. 5,758/2006)</p>	<p>The PNAP is an important strategy to implement the SNUC and expand society's participation in the management of protected areas. It is possible to see the participation evidenced in several parts of the decree, among which the following stand out: Principle - Promote participation, social inclusion, and the exercise of citizenship in the management of protected areas, permanently seeking social development, especially for the populations of the interior and around protected areas.</p> <p>- control, as well as those for monitoring and controlling the State. Special subjects entitled to participation and representation in the Councils- Indigenous Peoples, Quilombolas, and local communities in the management of Conservation Units and other protected areas. Cultural diversity - Establish and strengthen mechanisms and participation instruments that can expand the inclusion of sociocultural diversity in the management of Protected Areas. Environmental Education - Establish and implement the national strategy for environmental education, training, and qualification for participation and social control in the management of Conservation Units. Innovation - Promote SNUC's diversified, participatory, democratic, and transparent governance and strengthen innovative governance systems.</p>
<p>National Policy for the Sustainable Development</p>	<p>The PNPCT's main objective is to promote the sustainable development of Traditional Peoples and Communities, with an emphasis on recognizing,</p>

of Traditional Peoples and Communities (PNPCT) – Decree No. 6,040/2007	<p>strengthening, and guaranteeing their territorial, social, environmental, economic, and cultural rights, with respect and appreciation for their identity, their forms of organization and its institutions.</p>
Convention No. 169 of the International Labor Organization - ILO on Indigenous and Tribal Peoples.	<p>It establishes free, prior, and informed consultation as a right of peoples and as a principle of their political relationship with national states. Article 6 defines the general clause of the consultation, which succinctly describes its main elements: 1) the events in which the consultation must be carried out (administrative and legislative measures that directly affect indigenous and tribal peoples); 2) the opportunity for its realization (before any decision is taken); 3) the legitimate interlocutors for carrying out the consultation (the institutions representing the peoples concerned); 4) the qualification of the consultative process (through procedures appropriate to the circumstances and in good faith); and 5) the ultimate objective of the consultation (reaching an agreement) .</p>
Decree No. 7,747, June 5, 2012	<p>Establishes the National Policy for Territorial and Environmental Management of Indigenous Lands - PNGATI, with the objective of guaranteeing and promoting the protection, recovery, conservation, and sustainable use of natural resources of indigenous lands and territories, ensuring the integrity of indigenous heritage, the improvement of the quality of life and full conditions of physical and cultural reproduction of current and future generations of indigenous peoples, respecting their sociocultural autonomy, under the terms of current legislation (in view of the Constitution and Convention No. 169 of the International Labor Organization - ILO, promulgated by Decree No. 5,051, of April 19, 2004).</p>
National Policy for Social Participation (2014) - Decree No. 8,243/2014	<p>The social participation policy aims to strengthen and articulate mechanisms and democratic instances for dialogue and joint action between the federal public administration and civil society. This decree recognizes social participation as a citizen's right and an expression of their autonomy . This law aims to consolidate social participation as a method of government.</p>
The Maria da Penha Law (Law No. 11,340/2006)	<p>The Maria da Penha Law (Law no. 11,340/2006) creates mechanisms to prevent and curb domestic and family violence against women in its 46. According to article 5, "domestic and family violence against women is any action or omission based on gender that causes death, injury, physical, sexual or psychological suffering and moral or property damage". This norm is in accordance with the Federal Constitution (art. 226, § 8) and the international treaties ratified by the Brazilian State (Convention of Belém do Pará, Pact of San José in Costa Rica, American Declaration of the Rights and Duties of Man, and the Convention on the Elimination of All Forms of Discrimination against Women).⁶⁵</p>

⁶⁵ [Maria da Penha Institute \(IMP\). Summary of the Law.](#)

<p>Law No. 12,015/2009 of the Criminal Code</p>	<p>Law No. 12,015/2009 of the Penal Code, which in article 216-A considers it a crime to constrain someone with the intention of obtaining sexual advantage or favor, the agent is prevailing in his/her position as superior or inherently in the exercise of employment, position or occupation</p>
<p>Law No. 13,718/2018 of the Criminal Code</p>	<p>Law No. 13,718/2018 of the Criminal Code, which typifies crimes of sexual harassment and the disclosure of a rape scene, makes publicly the nature of the criminal action of crimes against sexual freedom and sexual crimes against the vulnerable, establishes causes of the increase in the penalty for these crimes and defines gang rape and corrective rape as causes of increased punishment</p>
<p>Law No. 12,651 -May 25, 2012</p>	<p>The Law establishes general rules on the protection of vegetation, Permanent Preservation areas, and Legal Reserve areas; forestry exploitation, the supply of forestry raw material, control of the origin of forest products, and the control and prevention of forest fires and provides economic and financial instruments to achieve its objectives</p>

ANNEX 2: MODEL SOCIAL AND ENVIRONMENTAL VERIFICATION FORM FOR THE DEVELOPMENT OF ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS (ESMP)

GENERAL INFORMATION:

Institution:

The focal point (responsible for filling this form):

Project Location (lat, long):

Land unit(s) to implement the proposed actions (check all relevant options):

<input type="checkbox"/>	Settlement Project - Which?
<input type="checkbox"/>	Quilombolas community - Which?
<input type="checkbox"/>	Indigenous Land - Which?
<input type="checkbox"/>	Conservation Unit (surroundings)
<input type="checkbox"/>	Sustainable Use Conservation Unit
<input type="checkbox"/>	Full Protection Conservation Unit
<input type="checkbox"/>	Other - Inform:

COMPONENTS:

<input type="checkbox"/>	Component 1: Sustainable rural development
<input type="checkbox"/>	Subcomponent 1.1 - Strengthening Family Farming and Overcoming Hunger and Mitigating the Effects of Poverty

<input type="checkbox"/>	Subcomponent 1.2 - Strengthening the Marketing and Processing of Family Farming Products
<input type="checkbox"/>	Subcomponent 1.3 - Gender, Youth and Nutrition
<input type="checkbox"/>	Component 2: Access to water, sanitation and social technologies
<input type="checkbox"/>	Subcomponent 2.1 - Basic Rural Community Sanitation
<input type="checkbox"/>	Subcomponent 2.2 - Social Technology for access to water and Production Support
<input type="checkbox"/>	Component 3: Knowledge Management for Adaptation to Climate Change (INOVA CLIMA)
<input type="checkbox"/>	Subcomponent 3.1 - Capacity development of farmers and Technical Assistance (TA) teams
<input type="checkbox"/>	Subcomponent 3.2 - Promotion of environmental and climate education with a gender focus in rural schools
<input type="checkbox"/>	Subcomponent 3.3 - Promotion of technological research and implementation of pilot projects
<input type="checkbox"/>	Subcomponent 3.4 - Knowledge Management and Triangular South-South Cooperation
<input type="checkbox"/>	Subcomponent 3.5 - Strengthening the UGP for implementation and monitoring of activities

CHARACTERIZATION OF THE IMPACTS OF THE PLANNED ACTIVITIES (SEE ANNEX 3 FOR GUIDANCE ON THE ASPECTS TO TAKE INTO CONSIDERATION):

1.1 BIODIVERSITY CONSERVATION

VEGETATION

1.1.1 Does the proposed action provide for the suppression of vegetation?

No.

Yes, specify (type and area)and justify:

.....

1.1.2 Does the proposed action involve afforestation/reforestation?

No.

Yes, specify: _____

1.1.3 Does the proposed action provide for the use or collection of any forest product or by-product?

No.

Yes, specify: _____

1.1.4 Does the proposed action provide for prescribed burning or Integrated Fire Management?

No.

Yes, specify: _____

1.1.5 Does the proposed action creates a risk for the introduction of alien invasive species?¹

No.

Yes, Specify and justify: Does the proposed action provide for the production of native or traditional species from the local agrobiodiversity? (Examples: Xique xique, Mandacaru, Juazeiro, Umbu-cajá, Faveleira, Marmeleiro, Jucá, Jurema-preta, Oiticica, Aroeira, Sabiá, Feijão bravo, Catingueira, Emburana and Jandaíra (bee).)

1.1.5 Will the implementation of the proposed action influence the adequacy of the proprietors to environmental liabilities (Legal Reserve and Permanent Preservation Area)?

No.

Yes, specify _____

1.1.6 Is there a plan to install monocultures with project resources?

No

Yes, specify and justify: Is it possible to establish diversified systems instead (agroforestry, intercropping, etc.)?

1.2 RESOURCE EFFICIENCY AND POLLUTION PREVENTION

SOIL

¹ Please check the following list:

<https://specieslist.sibbr.gov.br/speciesListItem/list/drt1629923907803?fq=kvp+Regi%C3%A3o+Centro-Oeste%3AMT%2C+MS&q=&max=10>

1.2.1 Does the planned activity have any impact on the soil? Erosion, contamination, leaching, etc.?

No.

Yes, specify: _____

1.2.2 Does the action proposed provides for any activity that could contribute to the control of soil loss by erosion?

No.

Yes, specify: _____

1.2.3 Could the proposed action lead to the degradation of arable land?

No.

Yes, specify and indicate if you have a proposal for mitigation. If yes, which? _____

1.2.4 Will the proposed action contribute to improving soil physical, chemical, and biological conditions?

No.

Yes, specify _____

WATER RESOURCES

1.2.5 Is there water availability to meet the needs of the proposed action during its implementation?

Yes

No. How do you want to supply? : _____

1.2.6 Does the proposed action provide for the construction of a dam, capture point, derivation or interception in any body of water (river, source, etc.), for any purpose?

No.

Yes, there is a need to obtain a license. If there are interventions in Permanent Protection Area (APP), there is a need for authorization or license.

POLLUTION AND WASTE

1.2.7 Does the proposed action provide for the generation of solid waste, liquid effluents, gases resulting from works, processing, industrialization of raw materials, or any other process?

No.

Yes, specify and indicate mitigation measure _____

(Check for authorization from the environmental agency)

1.2.8 Does the proposed action provide for the use of pesticides?:

No.

Yes, describe the type, usage methodology, and monitoring mechanism of this usage. Justify: is there a possibility of implementing Integrated Pest Management (IPM) or applying bioinputs (bio pesticides, etc.)?

1.2.9 Is there a plan to purchase chemical fertilizers with project resources?

No

Yes, justify: is there a possibility of producing organic or green fertilizers locally, or purchasing them nearby (biocaldas or bio-fertilizers such as manure, bone meal, compost etc.)?

OTHER NATURAL RESOURCES

1.2.9. Check whether the proposed action will interfere with any other natural resource not listed in this checklist.

List: _____

1.3 INDIGENOUS PEOPLES AND TRADITIONAL POPULATIONS

1.3.1. Was a free, prior and informed consultation (FPIC) carried out?

No

Yes, specify _____

1.3.2. The information presented was translated into the native language of the population?

No

Yes, specify _____

1.3.3. What was the consultation and decision-making process requested by the population?

1.3.4. How was this process respected?

1.3.5. Do the activities respect the beliefs and culture of this population?

1.3.6. Do the activities respect the territorial management practices and local knowledge of this population?

1.4 WORKING RELATIONSHIPS

1.4.1 Check whether the proposed action complies with labor legislation. (For example, working hours, working conditions and remuneration.)

Identification of the main labor legislation applicable to the action: _____

1.4.2 Do workers perform risky work?

No

Yes. Are they properly equipped with Personal Protective Equipment?

1.4.3. Does the productive activity predominantly use family labor?

No

Yes

1.4.4 Check that the proposed action will not use child labor.

Description of the compliance monitoring mechanism for this item: _____

1.4.5 Check that the proposed action will not use forced labor.

Description of the compliance monitoring mechanism for this item: _____

1.5 CLIMATE CHANGE (Consult TAA – Targeted Adaptation Assessment):

1.5.1 Can the proposed activities be adversely impacted by heavy rains, flooding, wildfires or drought?

No.

Yes, specify _____

1.5.2. Agriculture: describe measures to address/manage risks of plant deaths, plant diseases and crop failures resulting from extreme weather:

Doesn't apply.

1.5.3 Forestry: describe measures to address/manage risks of plant deaths, plant diseases and forest fires resulting from extreme weather:

Doesn't apply.

1.5.4 Animal husbandry: describe measures to address/manage risks of deaths, diseases and to promote animal comfort considering the impacts of extreme weather:

Doesn't apply.

1.5.6 Can the proposed infrastructure construction be affected by flooding, landslides or wildfires?

No.

Yes, specify _____

Describe proposed mitigation measures:

1.6.6 Do project activities create a risk for the proliferation of pests and disease vectors following extreme weather events (for example creation of ponds after heavy rains where mosquitoes can proliferate) ?

No.

Yes, specify _____

Describe proposed mitigation measures:

2. CHARACTERIZING ACTIVITIES:

Does not apply - Check this if the institution has no actions within this component

2.1 Are public consultations planned?

Yes No

2.2 Is there a restriction on access to natural resources?

Yes No

If so, what are the compensatory measures? _____

2.3 Will there be the use of agricultural machinery?

Yes No

If the answer above is yes, please describe the measures to manage potential risks of contamination of invasive species (e.g., *Brachiaria* spp.):

2.4 Will there be the use of local labor?

Yes No

If the answer is no, please describe the measures for including the local population in the work and the measures for gender diversity in contracts:

2.5. For each negative impact identified, were agroecological solutions evaluated that alter the PD production process, so that this impact is eliminated? If such solutions exist, why are they not implemented?

3 RESTORATION ACTIVITIES (ENVIRONMENTAL DEVELOPMENT PLAN)

3.1 Is there any degraded water source in the community that could be restored?

If yes, specify: _____

3.2 Is there any desertification process currently taking place in the project area?

If yes, specify: _____

3.3 Are there erosion hotspots visible in the area?

If yes, specify: _____

3.4 Are all Permanent Preservation Areas (APP) and Legal Reserves (RL) protected (fenced)?

If yes, specify: _____

3.5 Is there any degraded area that could be reforested or restored (hillsides, water sources, riparian areas, areas in the process of desertification, etc.)?

If yes, specify: _____

3.6 Are there any native or traditional species endemic to the community that can be cultivated and redistributed?

If yes, specify: _____

3.7 Is there interest in seed exchange among farmers?

If yes, specify: _____

3.7 How are organic residues disposed in the community?

If yes, specify: _____

3.8 How are dry residues (recyclables) disposed in the community?

If yes, specify: _____

3.9 Is there a need for seedlings?

If yes, specify: _____

3.10 Are there abundant materials or plants that could be used in the production of bio inputs?

If yes, specify: _____

3.11 What environmental activity below the community is willing to pursue? It can be more than one.

- Restoration of Water Source (fencing, reforestation)
- Hillside restoration (fencing, reforestation)
- Restoration of Riparian Area or Legal Reserve (fencing, reforestation)
- Restoration of areas current suffering erosion / desertification(fencing, reforestation)
- Reforestation for climate regulation
- Seed Guardians: Collection and propagate seeds of endemic species
- Seed Bank
- Nursery

Composting organic residues (family compost bins)

Collect and Recycle dry residues

Other: _____

4. CONCLUSIONS AND NEXT STEPS

Summarize the positive and negative impacts of the proposed action considering the responses obtained by this checklist, characterizing the intensity (low, moderate, or high) and the occurrence (direct or indirect). Indicate the control measures indicated for adverse impacts (preventive or mitigating). This table summarizes the impacts identified by managing bodies and instruments for monitoring safeguards.

Proposed action approval:

Yes No

4. RESPONSIBLE:

Responsible for filling out this form:

Name:

Date:

Signature

Responsible for approval (Focal Point of the institution):

Name:

Date:

Signature:

Observation and recommendation:

ANNEXES:

E.g., Municipal permits for construction, water concessions, etc.

ANNEX 3 - OBJECTIVES TO BE OBSERVED IN THE ANALYSIS OF SOCIAL AND ENVIRONMENTAL IMPACTS DURING THE PREPARATION OF PROJECTS AND THEIR ACTIVITIES:

BIODIVERSITY CONSERVATION

- Protect and conserve biodiversity
- Ensure fair and equitable sharing of benefits from the use of genetic resources
- Respect, preserve, maintain, and encourage the knowledge, innovations, and practices of indigenous peoples and local communities relevant to the conservation and sustainable use of biodiversity, and their customary use of biological resources
- Adopt a preventive approach to the conservation and management of natural resources to ensure opportunities for environmentally sustainable development

ASPECTS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Vegetation suppression
- Uncontrolled Fires
- Collection of forest products
- Integrated Fire Management
- RL and/or APP restoration
- Risk of degradation of arable land
- Use of pesticides
- Production and treatment of waste and effluents
- Soil erosion
- Production of noise, smoke, bad smell.

- Introduction and current distribution of invasive alien species;
- Prevalence of monocultures using insecticides, fungicides and herbicides.

RESOURCE EFFICIENCY AND POLLUTION PREVENTION

- Avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides;
- Avoid or minimize project-related emissions of short and long-lived climate pollutants;
- Promote more sustainable use of resources, including energy, land and water; and identify opportunities for improving resource efficiency.

ASPECTS TO BE OBSERVED IN THE IMPACT ASSESSMENT

- Selection of locations and species of trees planted;
- Integrated management of soil fertility and promotion of green/organic manures;

- Integrated disease and pest management;
- Use of pesticides;
- Production and treatment of waste and effluents;
- Availability of water resources (underground and surface) and state of preservation of springs;
- Consumption of firewood for energy;
- Integration of trees and shrubs that maintain or enhance biodiversity and ecosystem functionality.

INDIGENOUS PEOPLES

- Support indigenous peoples in defining priorities and strategies for exercising their right to development
- Ensure that each project is designed in partnership with indigenous peoples and with their full, effective, and meaningful consultation, leading to the FPIC
- Ensure that indigenous peoples derive fair and equitable benefits and opportunities from project-supported activities in a culturally appropriate and inclusive manner
- Recognize and respect the rights of indigenous peoples to the lands, territories, waters, and other resources they traditionally owned, used, or trusted.

ASPECTS TO OBSERVE IN THE IMPACT ANALYSIS

- Free, Prior, and Informed Consent (FPIC) - Community consent.
- Adaptation of activities to the community's culture and organization

LABOR AND WORKING CONDITIONS

- Promote direct actions to foster decent rural employment
- Promote, respect, and fulfill fundamental principles and rights: - Preventing discrimination and promoting equal opportunities for workers
- Support freedom of association and the right to collective bargaining
- Prevent the use of child labor and forced labor
- Protect and promote the safety and health of workers
- Ensure that projects comply with national labor and employment laws and international commitments
- Leave no one behind to protect and support workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young workers, migrant workers, informal economy workers, and workers with disabilities.

ASPECTS TO BE OBSERVED IN THE IMPACT ANALYSIS

- Hiring labor from outside the community (existence of protocols to prevent sexual exploitation, the transmission of STDs, sanitary conditions at construction sites)
- Use of PPE
- Obtaining works licenses
- Observing labor legislation
- Prohibition of child labor

CLIMATE CHANGE

- Ensure the alignment of IFAD-supported projects with the countries' nationally determined contributions (NDC) and the objectives of the Paris Agreement and other international structures;
- Ensure that the proposed activities are selected and evaluated regarding climate change risks and the impact of possible disasters, including any impacts of the project on these risks.
- Apply the mitigation hierarchy in project design;
- Strengthen the resilience of communities to deal with the risk of impacts from climate change and climate-related disasters;
- Increase the capacity of communities to adapt to the adverse impacts of climate change and promote climate resilience and low-GHG projects that do not threaten food production.

ASPECTS TO BE OBSERVED IN THE IMPACT ASSESSMENT

- Reports of lack of water in the project area
- Reports of irregularity or lack of rain at the Project area
- Reports of dry periods (regular or irregular) at the project area
- Reports of an increase in diseases such as dengue or malaria at the project area
- Identification and valorization of local drought resistant species
- Location of infrastructure or other project investments in areas
- Location of infrastructure or other project investments in areas subject to forest fires/arson.
- Location of infrastructure or other project investments in areas subject to landslides (slopes, ravines).

ANNEX 4 - ENVIRONMENTAL MANAGEMENT PLAN MODEL

GENERAL INFORMATION:

Date:

PD/Objectives:

Responsible:

Address:

Characterizing PD activities:

Focal Point (Responsible for filling this form):

Email:

Land unit(s) for implementation of the proposed actions (select all relevant options):

<input type="checkbox"/>	Settlement Project - Which?	
<input type="checkbox"/>	Quilombolas community - Which?	
<input type="checkbox"/>	Indigenous Land - Which?	
<input type="checkbox"/>	Conservation Unit (surroundings)	
<input type="checkbox"/>	Sustainable Use Conservation Unit	
<input type="checkbox"/>	Full Protection Conservation Unit	
<input type="checkbox"/>	Other - Inform:	

PD's PERFORMANCE COMPONENTS:

<input type="checkbox"/>	Component 1: Sustainable rural development
<input type="checkbox"/>	Subcomponent 1.1 - Strengthening Family Farming and Overcoming Hunger and Mitigating the Effects of Poverty

<input type="checkbox"/>	Subcomponent 1.2 - Strengthening the Marketing and Processing of Family Farming Products
<input type="checkbox"/>	Subcomponent 1.3 - Gender, Youth and Nutrition
<input type="checkbox"/>	Component 2: Access to water, sanitation and social technologies
<input type="checkbox"/>	Subcomponent 2.1 - Basic Rural Community Sanitation
<input type="checkbox"/>	Subcomponent 2.2 - Social Technology for access to water and Production Support
<input type="checkbox"/>	Component 3: Knowledge Management for Adaptation to Climate Change (INOVA CLIMA)
<input type="checkbox"/>	Subcomponent 3.1 - Capacity development of farmers and Technical Assistance (TA) teams
<input type="checkbox"/>	Subcomponent 3.2 - Promotion of environmental and climate education with a gender focus in rural schools
<input type="checkbox"/>	Subcomponent 3.3 - Promotion of technological research and implementation of pilot projects
<input type="checkbox"/>	Subcomponent 3.4 - Knowledge Management and Triangular South-South Cooperation
<input type="checkbox"/>	Subcomponent 3.5 - Strengthening the UGP for implementation and monitoring of activities

COMMUNITIES DIRECTLY INVOLVED (AFFECTED PARTIES):

Non-affected parts are individuals, groups of individuals, or communities that may suffer direct positive or negative impacts from IFAD-funded operations. What is the social group involved?

<input type="checkbox"/> Indigenous People
<input type="checkbox"/> <i>Quilombola</i> community

<input type="checkbox"/> Extractive Community
<input type="checkbox"/> Riverine Community
<input type="checkbox"/> Small Family Farmers
<input type="checkbox"/> Other, describe:

BENEFICIARIES:

Target Group	Amount
Men	
Women	
Youth	

IFAD SAFEGUARD STANDARDS TRIGGERED BY PD

	Pattern	Objectives
<input checked="" type="checkbox"/>	Standard 1: Biodiversity conservation	<ul style="list-style-type: none"> ● Maintaining and conserving biodiversity. ● Ensure the fair and equitable distribution of the benefits of the use of genetic resources. ● Respect, preserve, maintain, and encourage the knowledge, innovations, and practices of indigenous peoples and local communities for the conservation and sustainable use of biodiversity and their habitual use of biological resources. ● Adopt a preventive approach to the conservation and management of natural resources to ensure opportunities for environmental and sustainable development.
<input checked="" type="checkbox"/>	Standard 2: Resource efficiency and pollution prevention	<ul style="list-style-type: none"> ● Avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides; ● Avoid or minimize project-related emissions of short and long-lived climate pollutants; ● Promote more sustainable use of resources, including energy, land and water; and Identify opportunities for improving resource efficiency.
<input type="checkbox"/>	Standard 3: Cultural heritage	N/A

☒	Standard 4: Indigenous peoples	<ul style="list-style-type: none"> • Support indigenous peoples in defining priorities and strategies for the exercise of their right to development. • Ensure that each project is developed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC. • Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project-supported activities in a culturally appropriate and inclusive manner. • Recognize and respect the rights of indigenous peoples to the lands, territories, waters, and other resources they have traditionally owned, used, or trusted.
☒	Standard 5: Labor and working conditions	<ul style="list-style-type: none"> • Promote direct actions to foster decent rural employment. • Promoting, respecting, and realizing fundamental principles and rights: - Preventing discrimination and promoting equal opportunities for workers; - Support freedom of association and the right to collective bargaining; - Prevent the use of child labor and forced labor. • Protect and promote the safety and health of workers. • Ensure that projects comply with national labor and employment laws and international commitments. • Leave no one behind, protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young workers, migrant workers, informal economy workers, and workers with disabilities.
☐	Standard 6: Community health and safety	N/A
☐	Standard 7: physical and economic resettlement	N/A
☐	Standard 8: Financial intermediaries and direct investments	N/A
☒	Standard 9: Climate change	<ul style="list-style-type: none"> • Ensure the alignment of IFAD-supported projects with nationally determined contributions (NDC) from countries and the objectives of the Paris Agreement and other international structures • Ensure that the proposed activities are selected and evaluated regarding climate change risks and the impact of possible disasters, including any impacts of the project on these risks. • Apply the mitigation hierarchy in the design of the project. • Strengthen the community resilience to address the risk of climate change impacts and climate-related disasters. • Increase the ability of communities to adapt to the adverse impacts of climate change and promote climate resilience and

		low GHG projects that do not negatively impact food production
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Safeguard Standards	Triggered
Standard 1: Biodiversity conservation	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Standard 2: Resource efficiency and pollution prevention	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Standard 4: indigenous peoples	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Standard 5: Labor and working conditions	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Standard 6: Community health and safety	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Standard 9: Climate change	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Other:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Other:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> no no <input type="checkbox"/> to be determined
Number of Categories affected	<input type="checkbox"/> 1 (Low Risk) <input type="checkbox"/> 2-3 (Medium Risk) <input type="checkbox"/> 4-5 (High Risk)



Disclosure

Period covered by the report:

Table 2: Monitoring

Social and Environmental Impacts	Mitigation measures	Describe completion status, suggest solutions where problems are encountered	Early judgment: does this measure seem effective?
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New impacts that have arisen

Other ESMS provisions

Complaints Mechanism

Gender integration

Stakeholder engagement

Indigenous Peoples Plan and

FPIC

Describe completion status and evidence

Issues and schedule

ESMP MONITORING- findings and recommendations:

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Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: N Financial Management Arrangements

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department



I. Summary of Financial Management arrangements

Paulo Freire II (PFF II) is the second phase of the Paulo Freire I project, implemented with IFAD funding during the period 2013-2019 and a total project value of US\$95 million, with the State Government of Ceará. Phase two will build on the lessons learned from phase 1 of the project, as well as IFAD's 25 years of experience in the semi-arid region of Northeast Brazil.

The implementing agency for PFFII is Secretariat for Agrarian Development (SDA), which is part of the Ceará State Government and the same implementing agency as for the first phase. SDA has extensive experience in implementing project financed with external funding and is currently implementing the Sao Jose project funded by the World bank with similar project value as PFFII.

The project will be co-financed by AECID. Separate Financing Agreements will be signed for the AECID Loan (EUR 92 million), AECID Donation (EUR 4 million) and IFAD Loan (EUR 8 million). IFAD and AECID will align where possible arrangements for financial reporting, disbursements and audit for increased efficiency and reduced administrative burden for the project. Based on the Co-Financing agreement to be signed between AECID and IFAD, IFAD shall review the disbursements requests and accompanying documentation, and recommend AECID whether to authorize the requested disbursements. In accordance with IFAD procedures disbursements for both AECID and IFAD funding will be made based on Interim Financial Reports (IFRS) which will provide for a cash flow of six months of execution. Request for disbursements will be submitted through IFAD Client Portal (ICP).

SDA has an adequate structure for the Project and sound arrangements for financial management with mature policies and procedures and systems and extensive experience with implementing similar IFAD and World bank financed projects.

Within the SDA a dedicated Project Management Unit (PMU) will be established responsible for project implementation under the guidance of SDA Planning Coordination (CODIP) and Financial Administrative Coordination (COAFI) with two dedicated finance staff. PMU staff will be responsible for financial management of the project in particular: (i) Maintaining accurate and complete accounting records ii) Ensuring adequate levels of internal control; (iii) Submitting the quarterly IFRS and presentation of justifications of expenditure disbursement requests based on the same; (iv) Preparation of annual financial statements; and (v) Coordinating timely submission of external audit including all funding sources and in accordance with Handbook for Financial Reporting and Auditing of IFAD-Financed Projects.

Detailed FM Arrangements in the Project Design Report (PDR)

The implementation approach for the project is decentralized with a large portion of financing used towards the financing of Local Rural Development Plans (PDRL). The PDRL's financial resources are "non-reimbursable" and include a monetary or non-monetary counterpart from the beneficiaries for physical investments for family and/or collective use (production, inputs, machinery, labor, etc.) and capacity building or which procedures around design, implementation and reporting are documented in the draft PIM.

The overall conclusion is that the Project's financial management arrangements are satisfactory with Financial Management Risk classified as Moderate.

Principal Fiduciary risks identified are the following: i) Timing differences AECID financing and IFAD loan which could affect the availability of funds and delay project implementation; ii) Delays in signing agreements with third sector entities for technical support (ATER) resulting in delays of program implementation; (ii) delays in the disbursement of gvt funding affecting project implementation. iii) Producer Families/Family Farming Organization implement the Local Rural Development Plans (PDRL), may have weak administrative capacity and experience have challenges around opening of bank accounts and report on the use of funds, which could delay disbursements, implementation and reporting; iv) use of auxiliary spreadsheets for budget monitoring by component category and financier and preparation of quarterly IFR resulting in high risk of human error; v) Delays or incomplete recording of indirect or in kind counterpart funding from SDA.

To address the risks above the following mitigation measures have been identified: i) Close Coordination between AECID and IFAD during negotiations and on signing and approval of respective financing agreements; ii) Terms of reference for hiring of Third sector Organization for ATER with No Objection IFAD as a condition for first disbursement and PIM which includes clear provision around approval, disbursements and reporting on Local Rural Development Plans (PDRL) with NO IFAD and AECID as a condition for first disbursement; iii) Ensure sufficient staff is assigned to accompany the implementation and reporting on Local Rural Development Plans (PDRL); iv) Adaptation of SDA system to allow for monitoring by component, category and source of funding and IFRs based on data from the SIAFE/CE system as part of Special Covenant in FA; v) SDA to ensure timely submission of request for fiscal space and counterpart funds complemented by ongoing Coordination by SDA and IFAD with Secretaria da Fazenda (SEFAZ) Treasury to ensure timely disbursement of Counterpart funding; vi) Establish and document in the PIM clear criteria for recording and valuing government counterpart financing from gvt and beneficiaries.

IFAD expressed to SDA its intention to explore the use of public auditors for the annual audit of financial statements of the project. Due to change in presidency of state court of auditors the evaluation and decision on use of private versus public auditors is on hold for 6 months.

During the design phase an evaluation of the Financial Management (FM) was carried out through the application of the FMAQ at design.

During the design mission, meetings were held with SDA representatives covering following aspects: (i) existing financial management systems that will be employed in monitoring, accounting and reporting by

Detailed FM Arrangements in the Project Design Report (PDR)

the Project; (ii) examination of staffing requirements; (iii) mapping of flow of funds foreseen; (iv) review of existing internal control mechanisms; (v) summary of reporting requirements, including the format and content of reports desirable to IFAD; and (vi) examination of internal and external audit structures.

A meeting was held with State General Controller and Ombudsman (Controladoria e Ouvidoria Geral do Estado do Ceará –CGE) which the institution responsible for internal Control, Compliance with Transparency Laws and responsible for grievance mechanisms. The CGE reports directly to the Executive. The CGE is also implementing with support from the Worldbank a program to promote integrity in public administration.

Through review of World bank PAD and in a meeting with World bank finance officer, it was confirmed SDA counts with qualified staff and sound policies and procedures. Fiduciary risk is evaluated by the World bank as moderate with main risk identified being delays in the execution and documenting the use of funds by the community association sub-projects and providing respective supporting documentation with as mitigating measure regional offices properly staffed to provide timely support to the subprojects;

The experience of World bank with external audits carried out by State Court of Accounts has been positive, both in terms of timeliness and quality of audit reports

Field visits were carried out as part of the design to communities and family farming organizations who implemented Local Rural Development Plans (PDRL) in Paulo Freire phase 1 and in geographic areas foreseen for PFF II.

AECID representatives participated in the design missions for the project.

II. Project financial profile

The cost of the project will be EUR 139 million over a six-year period. The financing plan includes an IFAD loan of EUR 8 million (5.7%), the Spanish Cooperation Agency (AECID) will contribute a loan of EUR 92 million (66%) and a grant of EUR 4 million (2.8%). The Ceará state government will contribute EUR 25 million (18.5%). In addition, the beneficiaries are expected to contribute EUR 10 million (7%)

To avoid delays in project implementation it will be important, dates of entry force of AECID and IFAD financings are aligned.

IFAD financing will be applied to in full to technical assistance to the technical assistance to family farmer organization for implementation of Local Rural Development Plans (PDRL) as part of component 1.

The AECID Donation consist of a cash contribution towards Component 3 Knowledge Management to the amount of EUR \$2.8 Million and an in-kind contribution in the form of technical assistance provided by Spanish public company Tragsatec in the form of a technical expert based within the PMU in Fortaleza valued at EUR 1.2 million.

Detailed FM Arrangements in the Project Design Report (PDR)

The government of Ceará will provide counterpart funding in cash to the amount of EUR 25 million across all components. The required amt of counterpart funding will be included in the annual budget submitted to state congress for approval.

Counterpart funding beneficiaries: Provisions for the valuation of foreseen beneficiary contributions of EUR 10 million will be documented in the PIM and closely monitored during the implementation of the project. Counterpart funding from beneficiaries will be tracked in the SDA system based on the reports submitted by farmers organizations when presenting technical reports accompanied with financial reports and supporting documentation.

The PIM will include procedures for valuation, registering and reporting on counterpart funding from both Gvt of Ceará and beneficiaries.

Eligible disbursement categories: The following table presents the eligible disbursement categories to be financed by the IFAD loan and the allocation of loan amounts to each category and the percentages of expenditure of the elements to be financed in each category. Since AECID as principal funder requires reporting by component allocation table in Annex 2 of the IFAD Financing agreements will be by component

Table 1: Project cost by component and funding source (€'000)

Brazil Projeto Paulo Freire II Components by Financiers (Euro '000)	IFAD		Aecid		Aecid_Donation		Ceara State Government		Beneficiaries		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
	1. Rural development with environmental sustainability based on agroecology	8 000	9.4	57 530	67.7	-	-	13 910	16.4	5 568	6.6	85 008
2. Access to water, sanitation and social technologies	-	-	28 450	72.7	-	-	6 264	16.0	4 432	11.3	39 146	28.2
3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semi-arid Region (INOVA CLIMA)*	-	-	-	-	4 000	100.0	-	-	-	-	4 000	2.9
Project Management, M&E, KM and SSTC	-	-	6 020	55.5	-	-	4 826	44.5	-	-	10 846	7.8
Total PROJECT COSTS	8 000	5.8	92 000	66.2	4 000	2.9	25 000	18.0	10 000	7.2	139 000	100.0

Table 2. Project Costs by category and Financier (thousands of EUR)

	FIDA		AECID LOAN		AECID DONATION		CEARA STATE GVT		BENEFICIARIES		TOTAL	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs												
A. Technical Assistance and Rural Extension -ATER-	8 000	31%	5 130	20%	-	0%	12 870	50%	-	-	26 000	18.7%
B. Technical Assistance -AT-	-	-	-	-	4 000	100%	-	-	-	-	4 000	2.9%
C. Grats & Subsidies	-	-	49 172	88%	-	-	1 040	2%	5 568	10%	55 780	40.1%
D. Goods, Service and Input	-	-	30 720	74%	-	-	6 536	16%	4 432	11%	41 688	30.0%
E. Trainings, Workshops & Meeting	-	-	450	82%	-	-	100	18%	-	-	550	0.4%
F. Civil Works	-	-	3 151	83%	-	-	645	17%	-	-	3 796	2.7%
Total Investment Costs	8 000	6%	88 623	67%	4 000	3%	21 191	16%	10 000	8%	131 814	94.8%
II. Recurrent Costs												
A. Salaries & Allowances	-	-	1 019	21%	-	-	3 809	79%	-	-	4 828	3.5%
B. Operating Costs	-	-	2 358	100%	-	-	-	-	-	-	2 358	1.7%
Total Recurrent Costs	-	0%	3 377	47%	-	0%	3 809	53%	-	0%	7 186	5.2%
Total PROJECT COSTS	8 000	6%	92 000	66%	4 000	3%	25 000	18%	10 000	7%	139 000	100.0%

Detailed FM Arrangements in the Project Design Report (PDR)

Allocation table in Annex 2 will be by component. The table below showing project costs by category is included for below for reference.

The overall % of recurrent costs is 5.2% which is in line with the actual 4.6% recurrent costs for Phase 1 of 4.6% . Salary costs and operating costs will be shared between AECID and Gvt of Ceara

Table 3: Project cost per component per year (€'000)

Project Components by Year -- Totals Including Contingencies Euro ('000)	Totals Including Contingencies (Euro '000)						Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
1. Rural development with environmental sustainability based on agroecology	15	6 963	22 365	33 315	22 320	30	85 008
2. Access to water, sanitation, and social technologies	1 898	4 320	10 610	9 547	8 573	4 199	39 146
3. Knowledge Management and Cooperation to Adapt to Climate Change and Combat Desertification in the Semiarid Region (INOVA CLIMA)"	410	999	938	683	590	380	4 000
Project Management, M&E, KM and SSTC	3 438	1 258	1 468	1 598	1 478	1 608	10 846
Total PROJECT COSTS	5 760	13 539	35 381	45 143	32 961	6 217	139 000

Conditions for disbursement to be included in the FA will be aligned with AECID and include: i) opening of the designated account in EUROS; ii) Appointment of the PMU project coordinator and finance manager; iii) Program Implementation Manual including clear provision around approval, disbursements and reporting on Local Rural Development Plans (PDRL) with NO IFAD and; iii) Terms of reference for hiring of Third sector Organization for ATER with No Objection IFAD.

Project Lead Agency: The borrower of the Project will be the State of Ceará , and the federal government will provide a sovereign guarantee. The Executing Agency will be the Secretariat for Agrarian Development (SDA) which is part of the Government of the state of Ceará.

A Co Financing Agreement will be signed between AECID and IFAD. Under the draft Coordination Agreement, IFAD shall review justification of expenditure and disbursement request submitted by SDA and based on this revision IFAD shall recommend whether or not to authorize the corresponding disbursement.

Experience of the Project's Lead Agency: SDA has extensive experience in executing projects financed by international agencies, including Paula Freire I with a total value of US\$95 million including an IFAD loan for the amount of US\$31 Million, and the Sao Jose financed with a US\$100 million loan from the World Bank and Counterpart funding from the state of Ceará of US\$50 million.

Within the structure of the SDA a dedicated Project Management Unit (PMU) will be created. For the implementing arrangement Phase II of the project similar arrangement will be in place as for phase II with improvements and based lesson learned in the first phase, in particular (i) Prioritize selection and signing

Detailed FM Arrangements in the Project Design Report (PDR)

of agreements with entities providing technical support (ATER) in start-up phase with clauses on disbursements aligned with implementation of activities and clear reporting requirements incorporated. (ii) Implementation of a complementary automated reporting system to generate budget versus actual reports by component, category, and funding source and IFRs based on data from SIAFI-CE system to avoid human errors and delays in reporting; (iii) Establish and document in the PIM clear criteria for recording and valuation of both direct and indirect counterpart funding from government

The Project Management Unit (PMU), based within the SDA in Fortaleza (CE), is responsible for implementing the project and carrying out the activities of technical coordination, management of the agreements established with the partner entities, management of the agreements established with the beneficiaries, procurement management, financial management and audits.

In order to guarantee the project's presence in the field, PPF II focal points will have dedicated physical spaces at EMATERCE's regional offices or outposts. The SDA II will allocate resources for the renovations needed for these offices as part of counterpart funding to PPF II.

The PMU's key team will be made up of government employees and complemented by professionals hired through a partnership with the Inter-American Institute for Cooperation on Agriculture (IICA), mainly in the areas of monitoring and evaluation, procurement, finance/accounting. Where possible the project will rehire staff professionals who have been selected through competitive processes in phase 1 subject to satisfactory performance.

The PMU will be responsible for financial management and ensure compliance with the financing agreement and the PIM. The unit will be responsible for: (i) Maintaining accurate and complete accounting records; (ii) Ensuring adequate levels of internal control; (iii) submitting the quarterly IFRS and presentation of justifications of expenditure disbursement requests based on the same; (iv) Preparation of annual financial statements; and (v) coordinating timely submission of external audit including all funding sources and in accordance with Handbook for Financial Reporting and Auditing of IFAD-Financed Projects.

The State Secretariat of Finance (SEFAZ). SEFAZ will be responsible for (i) including the Project and its approved budget in SIAFI-CE system, (ii) administering the Project's designated accounts for AECID Loan AECID Donation and IFAD Loan); (iii) Processing the Project's payments and disbursements, based on instructions of PMU; (iv) supporting the PMU in preparing the Project's expenditure justifications in the format and deadlines agreed with the financiers EACID and IFAD); (v) keeping the PMU informed of disbursements and payments made.

Agreements will be signed with between farmer families/Family farming organizations for the implementation of Local Rural Development Plans (PDRL). An estimated number of 8-10 third sector organization will be hired in a competitive bidding process to provide technical support to the design, implementation, and justification of use of funds of the plans of Local Rural Development Plans (PDRL). The technical support provided by the Third Sector entities for Technical Support selected will include the administrative aspects of the Local Rural Development Plans (PDRL). Transfer of funds for Local Rural

Development Plans (PDRL), based on approval process as documented in the PIM will be directly from SDA to the farmers organizations.

III. **Financial Management Risk Assessment**

1. **Country level**: Brazil is classified as an upper middle income country (UMIC) and has ordinary financing conditions. The latest GNI per capita value published by the World Bank was 8,140 in 2022. Currently, the country classifies as having inherent as well as substantial GF risk, considering the aspects mentioned below.

- a. **Transparency International**: According to the 2023 Transparency International report, Brazil ranks 104th (out of 180 countries) with a Corruption Index score of 36/100, corresponds to an inherent country risk of Substantial. This is slightly lower compared to 2022. Main issue highlighted for Brazil is removal of prosecutors and judges without merit undermining the independence of the judiciary system.
- b. **PEFA**: There are no recently published PEFA assessments. The last PEFA published was in 2009;
- c. **Debt sustainability**: Using a wide range of analyses, including the Sovereign Risk and Debt Sustainability Framework, debt sustainability risks are assessed as moderate. Gross debt declined to 86 percent of GDP in 2022 and net debt to 57 percent, both substantially higher than the average of emerging market peers. Debt projections are very sensitive to changes in interest rates, given the high proportion of short-term and floating coupon debt. Significant fiscal risks also arise from lawsuits. The overwhelming domestic investor base, low foreign currency debt, and large public sector cash reserves mitigate refinancing risks. In the baseline scenario, public sector debt is expected to continue rising over the medium term, before stabilizing at around 97% of GDP in the extended horizon projection. (Source IMF Article IV consultation, July 2023);
- d. **World Bank Country Partnership Framework**: The world bank assessed the fiduciary risk for Brazil as moderate as per the country partnership framework covering the period FY18-FY23. The federal government financial management systems are reasonably strong, provide reliable information, and can track the receipt and use of funds transparently. Reviews of subnational public finance management, including through PEFA assessments in selected states, reveal a number of strengths but also areas for improvement. The strengths include robust legal framework that helps to promote uniformity in practices. Internal controls are reasonably strong as a result of inbuilt controls in the information systems, combined with strong oversight from internal (Office of the Comptroller General of the State—Controladoria Geral do Estado (CGE)) and external control (State Court of Accounts—Tribunal de Contas do Estado (TCE)) agencies. Financial management arrangements and internal controls maintained by project implementing agencies for IBRD-financed projects have generally been adequate to ensure that funds have been used for their intended purposes. A (Source: World Bank 2017).
- e. **Operational Risk Assessment Economist Intelligence Unit**: Overall operating risk in Brazil is moderate. The political system lacks effectiveness, and graft is often encountered among public officials. Social unrest is a latent risk in 2024-25, as tepid growth rates will weigh on the popularity

Detailed FM Arrangements in the Project Design Report (PDR)

of the leftist president, Luiz Inácio Lula da Silva. A conservative and right-leaning Congress could block Lula's initiatives and undermine governability, although EIU expects him to manage the ramifications and pass his main reforms. The unveiling of a credible, rules-based fiscal framework has assuaged investor concerns about fiscal slippage and unorthodox policy, as the framework sets a ceiling to government spending. (Source Economist 2024)

- 1) **Entity Level:** IFAD has a long-standing cooperation with the State of Ceará and successive investment projects. The Executing Agency for the new project will be the -Secretariat for Agrarian Development (SDA). The executing agency SDA counts with adequate structure, systems and experience and has a proven track recorded of successful implementation of externally funded projects with IFAD and world bank of similar magnitude. Within SDA a Project Management Unit (PMU) will be established with Central Team based in Fortaleza and field technicians based in EMATERCE offices in the project's territories. Various staff members with previous experience in the first phase of the project remain employed by SDA and could potentially be reassigned to PFF phase 2.
- 2) **Project level:** Related risks are considered moderate and include based on the experience in phase 1 of the project : (i) Decentralized implementation with various third sector entities involved in providing key technical support to the implementation of adding to the complexity of implementation arrangements; (ii) Delays in contracting of sufficient staff at lack of capacity at to accompany the implementation and reporting on execution of Business Plans; (iii) Insufficient counterpart funding from State of Ceará ; (iv) No clear definition of counterpart funding State of Ceará and unclear policies and processes for recording and valuation of counterpart funding; (v) Use of auxiliary spreadsheets for the preparation of IFRs as required by IFAD; (vi) Incomplete recording and lack of supporting documentation to substantiate counterpart funding from beneficiaries.

Proposed mitigation measures include: (i) Prioritize selection and signing of agreements with third sector entities (ATER) in start-up phase and Include in agreements with third sector entities 9ATER) adequate clauses on disbursements aligned with implementation of activities and reporting requirements (ii) Ensure during design phase COSTAB includes sufficient budget for technical staff in decentralized units and ensure timely hiring (iii) Close Coordination with Secretaria da Fazenda (SEFAZ) Treasury to ensure approval of sufficient and timely disbursement of direct Counterpart funding; (iv) Ensure details of counterpart funding are clearly defined in COSTAB and agreed with State of Ceará during Design, Establish and document in the PIM clear criteria for recording and valuation of counterpart funding from both State of Ceará and beneficiaries; Ensure all funding sources including Govt counterpart funding are included in the AWPB submitted for No Objection to IFAD; (v) Evaluate during design the adaptation of system to allow for automation of generation if IFRS in formats as per FMFCL

- 3) **Previous IFAD experience:** Brazil is the largest borrower from the International Fund for Agricultural Development (IFAD) in the Latin America and Caribbean region. Since 1980, IFAD has provided 11 loans (worth \$259 million) for a portfolio of projects with a total cost of \$870 million. National counterpart financing for the portfolio is \$510 million (60 percent of total portfolio costs). Four projects are currently under implementation (PDHC, PSA, PAGES and PSI); one is pending Board Approval (Parceiros da Mata) pending EIF (PCRPP); and three are under design (PDHC III, PFFII and PROCASE) totaling another US\$132 million in financing and co-financing leverage of US\$950 million.

Detailed FM Arrangements in the Project Design Report (PDR)

Brazil's overall portfolio shows moderately satisfactory FM performance. The main problems encountered in the portfolio are: (i) Lack of fully satisfactory accounting systems resulting in manual preparation of IFAD reporting; (ii) Unreliable or delays in financial reporting; (iii) Insufficient administrative/accounting training for beneficiaries; and (iv) Challenges related to the accuracy and completeness of recording of counterpart financing.

Main lessons learnt specifically from Paulo Freire Phase 1 are (i) Prioritize selection and signing of agreements with entities providing technical support (ATER) in start-up phase with clauses on disbursements aligned with implementation of activities and clear reporting requirements incorporated. (ii) Implementation of a complementary automated reporting system to generate budget versus actual reports by component, category and funding source and IFRs based on data from SIAFI-CE system to avoid human errors and delays in reporting; (iii) Establish and document in the PIM clear criteria for recording and valuation of both direct and indirect counterpart funding from government.

4) Use of Country systems

Organization: The project will have a dedicated PMU with a finance function will be established for the project partly staffed by Government employees with experience in previous IFAD financed Projects. The PMU finance staff operates under the guidance of SDA's Planning Coordination (CODIP) and Financial Administrative Coordination (COAFI).

Budget: The resources needed to implement the project, AECID and IFAD loans and Government counterpart funding, will be included by the SDA in the Annual Budget Law (LOA) and the Multi-Year Plan (PPA) which are submitted by Governor's office to State legislative assembly for approval. Federal Government does not directly approve state budgets but states are required to adhere to the Fiscal Responsibility Law which imposes fiscal discipline on states including limits on borrowing and debt levels. Approved budgets are entered in the Governments SIAFE-CE system.

Treasury: Designated Account in dollars (US\$) will be held at the Caixa Econômica Federal (CEF) in Fortaleza, which is a government owned financial services company. The State Secretariat of Finance (SEFAZ).will be responsible for administering the Project's designated accounts

Accounting: The project will use the Government SIAFE-CE system which is obligatory for processing of payments. For PFF II IFAD will accept the application of accounting standards as per Law No. 4.320 which mandates the use of accrual accounting based on standard set by Federal Accounting Council which as per IFAC evaluation of adoption status is aligned with International Public Sector Accounting Standards (IPSAS).

Reporting: It is being evaluated whether reporting capability of system can be expanded to allow for automated generation of IFRS. Financial Reporting for the World Bank financed Sao Jose Projects are already automated.

Internal Control: The project is subject to Law No. 4.320 which establishes the norms and principles for budgeting, accounting, and financial management within the public sector. The project is subject to internal audits carried out by State General Controller and Ombudsman (Controladoria e Ouvidoria Geral do Estado do Ceará –CGE).

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External audit: Audits in PFF Phase 1 have been carried out by private auditors. The Ceará State Courts of accounts is experienced in the performance of externally financed projects. The World bank is using State Court of auditors for the Sao Jose project and evaluated quality and timeliness as satisfactory is therefore also qualifies for audits of IFAD projects. During the design mission IFAD expressed its preference for external audits to be carried out State court of auditors.

Project Control Risks

Summary of FM Risks and mitigating actions:

Summary	Brief description of issues	Inherent Risk at design H/S/M/L	Agreed Mitigation Measures (covenants precedent to disbursement)	Residual Risk H/S/M/L
A. Inherent risk assessment pillars				
i. Country level	Ceilings on gvt spending due to fiscal policy resulting in insufficient fiscal space assigned to cover counterpart funding for the project,	M	Ongoing Coordination with Secretariat da Fazenda (SEFAZ) Treasury to ensure approval of fiscal space for the project sufficient and timely disbursement of Counterpart funding;	N/A
ii. Entity level		L		N/a
iii. Project level	<p>Timing differences between AECID financing and IFAD loan which could affect the availability of funds and delay project implementation; ii) Delays in signing agreements with entities providing technical support (ATER) resulting in delays of program implementation.</p> <p>Decentralized implementation with various entities involved in design and implementation and reporting on Local Rural Development Plans (PDRL) adding complexity to implementing arrangements..</p>	S	<p>Close Coordination between AECID and IFAD during negotiations and on signing and approval of respective financing agreements.</p> <p>IFAD funding assigned exclusively to technical support.</p> <p>Terms of reference for hiring of third sector entities for technical support (ATER) with No Objection IFAD as a condition for first disbursement. And PIM which includes clear provision around approval, disbursements and reporting on Local Rural Development Plans (PDRL) with NO IFAD and AECID as a condition for first disbursement</p>	M
B. Control risk assessment pillars				
1. Organization and Staffing	i) While the PMU has not been set up SDA not have enough staff to	M	(i) Hiring of Finance Manager within PMU dedicated to the	L

Detailed FM Arrangements in the Project Design Report (PDR)

	<p>absorb the demands to manage the finances of the projects which might delay start-up;</p> <p>(ii) Not enough staff assigned to support administrative aspects of Local Rural Development Plans (PDRL) might affect quality of and delay reporting on execution of and related counterpart funding</p>		<p>project as a condition for first disbursement.</p> <p>(ii) Include in Terms of Reference for third sector entities (ATER) which requires NO from IFAD as a condition for first disbursement, clear responsibilities, and the requirement to assign sufficient staff with the right profile to accompany administrative aspects of Local Rural Development Plans (PDRL).</p> <p>(iii) During start-up phase SDA to provide training to staff selected third sector entities for technical support (ATER) on administrative processes Local Rural Development Plans (PDRL) as documented in the PIM.</p>	
2. Budgeting	<p>Insufficient or delays in the disbursement of gvt funding affecting project implementation.</p>	M	<p>SDA will ensure timely submission of request for fiscal space and counterpart funds to ensure sufficient and timely resources for Project implementation. IFAD Team will ensure that SEPLAN is firmly committed to ensuring the allocation of sufficient counterpart financial resources for project implementation. Monitoring by IFAD of the availability of counterpart funds at least every six months.</p>	M
3. Funds flow and Disbursement Arrangements	<p>(i) Timing differences AECID financing and IFAD loan which could affect the availability of funds and delay project implementation</p> <p>(ii) Delays in signing agreements with entities providing technical support (ATER) delaying implementation.</p> <p>(iii) Farming Families or rural farming organizations, which will manage the resources and implement the Local Rural Development Plans (PDRL), may have weak capacity around resource management and may have challenges opening bank accounts and report on the use of funds, which could delay disbursements, implementation and reporting</p>	S	<p>i) Alignment of dates entry into force financing agreements AECID and IFAD through close cooperation during negotiations and approval processes ii) ToR for selection of third sector entities supporting Local Rural Development Plans (PDRL) with No IFAD as a condition for first disbursement</p>	S
4. Internal Controls	<p>Adequate controls in place as confirmed during supervision Paulo Freire I and confirmed by audits , IFAD evaluation during design and</p>	L	<p>No measures</p>	L

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	Worldbank fiduciary evaluations for same implementing entity			
5. Accounting and Financial Reporting	<p>i) use of auxiliary spreadsheets for budget monitoring by component category and financier and preparation of quarterly IFR resulting in risk of human error</p> <p>ii) Delays in or incomplete recording of indirect or in-kind counterpart funding from SDA</p> <p>iii) Delays or incomplete recording of indirect or in-kind counterpart funding from beneficiaries</p>	S	<p>i) Adaptation of SDA system to allow for monitoring by component, category and source of funding and IFRs based on data from the SIAFE/CE system as part of Special Covenant in FA</p> <p>ii) Establish and document in the PIM clear criteria for recording and valuation of government counterpart financing.</p> <p>iii) Establish and document in the PIM the process for recording of counterpart funding from beneficiaries and follow up by IFAD based on IFRS and during supervision missions</p>	M
6. External Audit	It remains undecided whether external audits will be carried out by state court of auditors as is the case for world bank financed project or by private auditor	M	Meeting with Court of Accounts Ceará to discuss capacity to include the audit of the project	M
Overall FM Risk @ design¹		M		

IV. Financial Management and Disbursement Arrangements

1) Financial management organization and staffing

The SDA finance team consists of qualified staff of which some have been involved in Paulo Freire Phase with extensive experience and knowledge of IFAD's policies and procedures. PMU finance team will consist of a Finance Manager and an accountant and will work in conjunction with the existing administrative structure of the SDA. The Job descriptions will be included in the Draft of the PIM.

The PMU will be made up of government personnel and/or contractors, selected through a competitive process in accordance with the selection rules defined in the project and state legislation. In all cases, they must have appropriate experience and professional qualification.

The PMU finance staff operates under the guidance of SDA's Planning Coordination (CODIP) and Financial Administrative Coordination (COAFI).

Administrative support to Farmers on the financial reporting on execution of Local Rural Development Plans (PDRL) including counterpart funding will be done through the third sector entities contracted for technical assistance. To facilitate administrative processes and timelines and quality of reporting family farming organization will be provided with computer kits.

Budgeting

¹ The Final Risk at design should reflect a combined consideration of inherent and control risks for the project.

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SDA will be responsible for securing the necessary resources including counterpart funding Gvt of Ceará , throughout the duration of the project. The resources needed to implement the project, AECID and IFAD loans and Government counterpart funding, will be included by the SDA in the Annual Budget Law (LOA) and the Multi-Year Plan (PPA) which are submitted by Governor's office to State legislative assembly for approval. Federal govt does not directly approve state budgets but states are required to adhere Fiscal Responsibility Law which imposes fiscal discipline on states including limits on borrowing and debt levels.

For each year, the PMU will submit to IFAD, no later than 60 days before the start of the year, an Annual Workplan and Budget (AWPB) which will cover all funding sources and include a breakdown of expenditure by component, category, source of funding and quarter of execution.

The approved budget for the project as per the Annual Budget law (LOA) and all transactions for the project will be processed through the Integrated Financial Planning and Accounting System of the State of Ceará - (SIAFE-CE).

Disbursement Arrangements and Flow of Funds

IFAD and AECID loan and donation funds will be disbursed in euros (EUR) and deposited in designated account in euros at the Caixa Econômica Federal (CEF) in the name of of the State of Ceará (SEFAZ - Secretaria da Fazenda). Separate Designated accounts in EUR for IFAD Loan, AECID Loan and AECID Donation. The State Secretariat of Finance (SEFAZ) will be responsible for administering the Project's designated accounts

Operational accounts will be maintained with CEF in Fortaleza) to process local currency payments to service providers and suppliers, and transfer funds to other project partners. A pooled operational account in Brazilian Reals may be used for expenditure covered by IFAD Loan, AECID loan and State of Ceará counterpart funding as the system permits tracking of balances by funding source. For the AECID Donation, Spanish Government regulations require a separate operational account in Brazilian reals is kept.

In accordance with IFAD procedures disbursements for both AECID and IFAD funding will be made based on the Quarterly Interim Financial Reports (IFRS) and will provide for a cash flow of six months of execution. Request for disbursements will be submitted through IFAD Client Portal (ICP).

Based on the Co-Financing agreement signed between AECID and IFAD, IFAD shall review the disbursements requests and accompanying documentation, based on which IFAD shall recommend AECID whether to authorize the requested disbursements.

Justifications of expenditure will be presented for AECID and IFAD funding will be submitted on a quarterly basis through the ICP system based on the expenditure reported in the quarterly IFRS. For purposes of justification of expenditures, the exchange rate used to convert expenditures incurred in reais (BRL) to Euros (EUR) will be the exchange rate effective on the date of conversion from the currency of disbursement to the local currency (internalization rate). The amounts withdrawn from the project's operating account to finance 100% of the expenses with funds from the Government of the State of Ceará (counterpart), as well as the beneficiaries' contribution, must be converted at the exchange rate of the last day of the month in which these expenses are incurred (Central Bank rate - EURO closing Ptax rates):

Detailed FM Arrangements in the Project Design Report (PDR)

<http://www4.bcb.gov.br/>

Detailed instructions will be issued by IFAD in the Financial Management and Control Letter (FMFCL)

Internal Controls and Internal audit arrangements

All projects implemented by government entities including those at state level are subject to Law No. 4.320/64 which establishes the norms and principles for budgeting, accounting, and financial management within the public sector.

Internal Control will be ensured by establishing segregation of duties, reconciliation of accounts, approval levels for expenditures supported. Process flows are clear and well understood by SDA staff. All budgetary and accounting transactions for the project will be carried out in the state public accounting system SIAFE-CE. All project costs are recorded in accordance with SDA's Chart of Accounts and are mapped Project-specific codes, allowing for reconciliation of reporting at project level with gvt system.

Assets purchased will be listed in an inventory record, using the State asset system (Sistema Integrado de Gestão de Bens Móveis e Sistema Integrado de Bens Imóveis (SGBM-CE e SGBI-CE) and at Fortes. Each asset is given an individual master record and number. A physical inventory control is performed at the end of each fiscal year for these assets and reconciled with the respective control accounts annually.

Internal Control is complemented by the oversight of State General Controller and Ombudsman (Controladoria e Ouvidoria Geral do Estado do Ceará –CGE)

Accounting Systems and Financial Reporting mechanisms

The use of the SIAFI-CE system is obligatory for payment processing and incorporates adequate measures to control user access based on user roles and responsibilities. The SIAFI-CE system generates reports and financial statements that provide insights into the financial status and performance of government agencies but does not allow for monitoring of budgeting based on components and categories as is a requirement for IFAD and other external financing. The SIAFE- CE system has interfaces with other government systems.

Worldbank Interim Financial Reports which are very similar to IFAD IFRS are automated and generated through the S2GPR system which has been replaced since 2022 with the CIAFE-CE system. SDA will explore before start date of the project possibilities to automate the preparation of the IFRS as per the format communicated by IFAD in the draft Project Financial Management and Financial Control Arrangements Letter (FMFCL) to allow for i) tracking of budget and expenditure by funding source, component and category as per Financing Agreement and Project Design. ii) Automated generation of the IFRS in IFAD format including all sources of funding (AECID Loan and Grant, IFAD Loan, Gvt of Ceará and beneficiaries in Euros.

During the project execution period, the PMU will submit to IFAD through the Financial Execution Module in ICP on a quarterly basis the IFR , within 30 days of the end of quarter end period, which consist off specific forms: i) Cash Forecast (next 2 quarters); ii) Summary of Sources and Uses of Funds; iii) Designated Account Activity Report (bank reconciliation); iv) AWPB - Quarterly Variation Analysis; v) AWPB Yearly Variation Analysis; and vi) Cumulative Variation Analysis.

Detailed FM Arrangements in the Project Design Report (PDR)

The subproject monitoring system – SIGAF (Sistema de Gestão para a Agricultura Familiar) will be used to account for disbursement and to monitor physical and financial implementation of the of Local Rural Development Plans (PDRLS)). To ensure transparency of the use of public funds all PDRLS are disclosed for the public in the e-parcerias system

The State of Ceará follows: (i) the Brazilian Accounting Standards Applicable to the Public Sector (Normas Brasileiras de Contabilidade Aplicadas ao Setor Público-NBCASP); (ii) Law 4,320/64, that establishes certain high-level accounting principles (Normas Brasileiras de Contabilidade-NBC); and (iii) the Accounting Manual Applicable to the Public Sector (Manual de Contabilidade Aplicada Setor Público-MCASP) issued under Law 10,180 of February 6, 2001 and Decree 3,589 of September 6, 2000. Both the NBCASP and MCASP were revised via Portaria STN 467 of August 6, 2009 and updated in 2013 to incorporate the text of the International Public-Sector Accounting Standards (IPSAS), with adaptations for the Brazilian reality. For PFF II IFAD will accept the application of accounting standards as per Law No. 4.320 which mandates the use of accrual accounting based on standard set by Federal Accounting Council which as per IFAC evaluation of adoption status is aligned with International Public Sector Accounting Standards (IPSAS).

During the period of Project implementation, the Borrower shall submit through the Financial Execution module in ICP the unaudited financial statements, indicating in the accompanying notes the respective accounting standard adopted, within 120 days after the end of each fiscal year. The fiscal period of the Project comprises the period from January 1 to December 31 of each year.

The PIM will include detailed provisions for recording, valuation and reporting on in kind contributions Gvt of CEARÁ and contributions beneficiaries.

External Audit

During the period of execution of the Project, the Borrower must submit to the AECID and IFAD the audited financial statements prepared in accordance with standards set by Federal Accounting Council which as per IFAC evaluation of adoption status is aligned with International Public Sector Accounting Standards (IPSAS).

It remains to be determined whether the external audit of the Project will be carried out by the Ceará State Court of Accounts or private auditors. The Ceará State Court of Accounts is experienced in the performance of externally financed projects. The World bank is using State Court of auditors for the Sao Jose project and evaluated quality and timeliness as satisfactory is therefore also qualifies for audits of IFAD projects. During the design mission IFAD expressed its preference for external audits to be carried out State court of auditors.

A meeting with Ceará State Court of Accounts will be scheduled before EIF to evaluate capacity to assume responsibility for the external audit of the project in accordance with and as Handbook for Financial Reporting and Auditing of IFAD-Financed Projects including field visits and review of IFRS.

Detailed FM Arrangements in the Project Design Report (PDR)

AS per IFAC adoptions status, Brazilian auditing standards since 2005 have been fully converged ISA, with an ongoing system in place to incorporate new and revised ISA as they become available. New and revised ISA, are reviewed, translated, and republished as Brazilian auditing standards. As of 2022, the 2020 ISA is being applied.

V. Implementation Readiness

Table 3: FM Actions Summary: The actions needed to mitigate FM risks are summarised below:

	Action	Responsible Party / Person	Target Date / Covenants²
1	Finalization of the Financial Management sections of the Project Implementation Manual	SDA in cooperation with IFAD	Prior to entry into force
2	Meeting with Stare Court of auditors to evaluate whether they have capacity to carry out audit of the project	IFAD	Prior to entry into force
3	Agree with SDAR and state court of auditors the accounting standard to be applied for the preparation of the annual audited financial statements and include in PIM in particular: <ul style="list-style-type: none"> • Procedures for registration and valuation of counterpart funding state of Ceará in kind • Procedures for registering, valuation and reporting on contributions beneficiaries. 	SDA/IFAD	Prior to entry into force
4	Preparation of draft Coordination agreement with AECID	IFAD/AECID	Prior to entry into force
5	Agree with AECID on the valuation and documentation of in-kind contribution AECID for Technical support	IFAD/AECID	Prior to entry into force

² Indicate if covenants are required in Financing Agreement for each of these: effectiveness condition or disbursement condition or dated covenant.

Detailed FM Arrangements in the Project Design Report (PDR)

6	<p>Enhancements to SIAFI-CE system to allow for automated generation of:</p> <ul style="list-style-type: none"> • Budget monitoring reports which allow for monitoring of execution by Funding Source, Component and Categories as per classification in Financing Agreements AECID, IFAD and project design • Generation of Quarterly IFRS in IFAD format 	SDA	Prior to entry into force
7	Preparation of a TOR for selection of third sector entities for technical support (ATER) with NO FIDA/AECID	SDA/FIDA/AECID	Prior to entry into force
8	Ensure firm commitment SEPLAN is firmly committed to ensuring the allocation of sufficient counterpart financial resources for project implementation. Ensure sufficient funding is included in Annual Budget Law for 2025	SDA/FIDA	

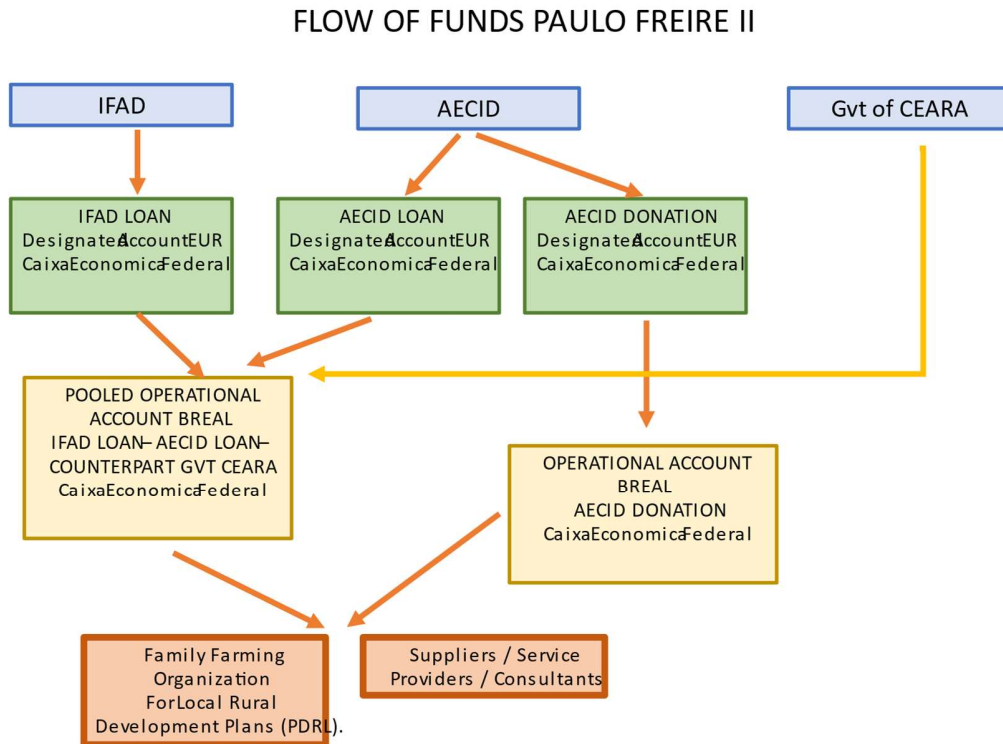
FM Supervision plan

Financial supervision of the Project will be carried out by IFAD also on behalf of AECID without prejudice to other national control and inspection bodies and will consist of assessing the implementation of financial management and performance mechanisms, identifying corrective actions, where appropriate, and monitoring fiduciary risks.

The supervision by IFAD will be carried out through:

- i) Review of quarterly Interim Financial Reports - IFRs
- ii) Presential participation in supervision missions for the Project
- iii) Review of audited financial statements and follow-up of issues raised by the auditors in their Management Letters

Appendix 1: Flow of Funds Chart



Detailed FM Arrangements in the Project Design Report (PDR)

Detailed FM Arrangements in the Project Design Report (PDR)

Appendix 2: FMAQ

FMAQ is available in the IFAD FMDB system with a summary includes in the Integrated Project Risk Matrix (IPRM) included as Annex to the Design

Brazil

Capacity Development for Overcoming Hunger and Mitigating the Effects of Rural Poverty and Extreme Poverty

Project Design Report

Annex: O Project Procurement Arrangements

Mission Dates: 10/12/2023 - 15/12/2023 and 09/01/2024 - 13/01/2024

Document Date: 26/06/2024

Project No. 2000004317

Report No. 6850-BR

Latin America and the Caribbean
Programme Management Department

Project Procurement Arrangements

Date _____

Country: Brazil

IFAD Financing Loan Number(s): _____

Project: Capacity Development Project to Overcome Hunger and Mitigate the Effects of Poverty and Extreme Rural Poverty – Paulo Freire Project (phase II)

Your Excellency,¹ Elmano de Freitas, Governor of the State of Ceará

1. I refer to the Financing Agreement between Brazil (“Borrower/Recipient”) and the International Fund for Agricultural Development (IFAD), dated [insert date of FA] (“Agreement”). The Agreement entered into force as of that date.
2. The instructions contained in these Project Procurement Arrangements govern the execution of project procurement operations with respect to the acquisition of goods, works and services under the Agreement. These arrangements replace and supersede any procurement guidance that has previously been issued to the project. In case these instructions conflict with those of the IFAD Project Procurement Handbook, the instruction of these Procurement Arrangements shall prevail.
3. Capitalised terms defined in the Financing Agreement and General Conditions shall have the same meaning in these Arrangements unless expressly defined otherwise in this document.
4. Section 7.05 of the General Conditions provides that the procurement of goods, works and non-consultancy services and consultancy selections will be carried out in accordance with the provisions of the IFAD Project Procurement Guidelines, as amended from time to time.
5. The IFAD Simplified Project Procurement Procedures for Fragile and Conflict Affected Situations guidelines shall not apply to this project.
6. Each Annual Work Plan and Budget must contain a Procurement Plan, which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines. The following procurement methods² shall be used³ for:
 - a. Works and works-related Non-Consulting Services:
 - (i) International Competitive Bidding (ICB): This procurement method applies to contracts estimated to cost EUR\$ 1.000.000,00 or more. Under

¹ His/Her Excellency (or The Honourable, depending on the country). The letter should be sent to the Authorized Representative of the Borrower/Recipient indicated in Section E of the Financing Agreement, at the address specified in the agreement: [Name], Minister for ----- of [Full name of the country].

² In case National Procurement Regulations apply and as far as these do not contradict with IFAD’s Project Procurement Guidelines, the equivalent terminology for procurement methods may be used; for example, ICB is the method for a publicly advertised competition at the international level. The Project Implementation Manual (PIM) will map the procurement methods that should be applied in accordance with these Arrangements.

³ To know the applicable procurement method, the cost estimate shall be for the entire procurement activity whether it is divided into lots or not; in case of lots, the sum of the cost estimates of all lots shall be used for identifying the applicable procurement method for the procurement activity.

ICB, the borrower/recipient *may apply a margin of domestic preference to local contractors of 7.5% excluding industrial plants;*

- (ii) National Competitive Bidding (NCB): might be applied to contracts estimated to cost less than EUR\$ 1.000.000,00. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;
- (iii) Shopping: might be applied to contracts estimated to cost EUR\$ 250.000,00 or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification; and
- (iv) Direct Contracting: applies to the indicated contracts in the Procurement Plan with due justification (as mentioned in the Handbook) subject to IFAD's NO under prior review⁴.

b. Goods and Goods-related Non-Consulting Services

- (i) International Competitive Bidding (ICB): This procurement and contracting method is applied to contracts whose estimated value is EUR\$ > EUR\$ 200,000 or more. Under international competitive bidding, the Borrower/Recipient may not apply a domestic margin of preference;
- (ii) National Competitive Bidding (NCB): may be applied to contracts with estimated amounts less than < EUR\$ 200,000. An exemption may be requested from IFAD for the use of this method beyond this threshold for individual activities with due justification;
- (iii) Price Comparison: May be applied to contracts whose estimated value is EUR\$ > EUR\$ 100,000 or less. A waiver may be requested from IFAD for the use of this method beyond this threshold for individual activities with due justification; and
- (iv) Direct Procurement: Applies to contracts presented in the Procurement Plan with due justification (as outlined in the Manual) subject to IFAD's agreement/no objection after prior review,⁵ or without IFAD's agreement/no objection for small value incidentals, whose individual assessed value is \$ 3,000 or less, up to an aggregate amount of \$30,000 per fiscal year. The same provider may not be selected more than once.

c. Consulting Services and related Non-Consulting Services

- (i) Quality and Cost Based Selection (QCBS): This selection method is the default for contracts with firms estimated to cost EUR\$ 150.000,00 or more;

⁴ A sufficiently detailed justification shall be submitted to IFAD to obtain its NO and shall include the rationale for the choice of direct contracting instead of competitive procurement and the basis for recommending a particular contractor/service provider in all such cases. Direct contracting could be justified under any of the circumstances listed in section 6, Module F1: Procurement Methods for Goods, Works and Non-consulting Services of the IFAD Procurement Handbook.

⁵ Sufficiently detailed justification will be submitted to IFAD for agreement/no objection and will include the justification for direct contracting versus a competitive procurement and contracting method, as well as the reason for the recommendation of a particular contractor/supplier in all these cases. Direct contracting can be justified based on any of the circumstances listed in Table 2 of Module F1: Methods of Procurement of Goods and Procurement of Works and Non-Consulting Services, of the Manual on Procurement of Goods and Procurement of IFAD works and services.

- (ii) Quality Based Selection (QBS): might be applied to contracts of any value if a proper justification is provided;
- (iii) Fixed Budget Selection (FBS), or Least Cost Selection (LCS)⁶: might be applied to contracts with firms estimated to cost less than EUR\$ 150.000,00. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;
- (iv) Consultants Qualification Selection (CQS): might be applied to contracts with firms estimated to cost US\$ 70.000,00 or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification;
- (v) Individual Consultants Selection (ICS): applies to contracts with individuals regardless of the value;
- (vi) Shortlisting following a Request for Expression of Interest is mandatory for all CQS and ICS procedures. In addition, Shortlisting is mandatory for all consulting services contracts estimated to cost US\$ 50.000,00 or more;
- (vii) Sole/Single Source Selection (SSS): applies to contracts with firms designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review⁷ and/or contracts estimated to cost US\$ 5.000,00 or less, up to an aggregate amount of US\$ 25.000,00 per annum; and
- (viii) Sole/Single Source Selection (SSS): applies to contracts with individuals designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review⁸ and/or estimated to cost US\$ 2,500,00 or less and with a contract duration of three months or less and up to an aggregate amount of US\$ 25.000,00 per annum.

d. Other Procurement Methods or Arrangements:

- (i) The use of Force Account is not allowed.
- (ii) Extensions of contracts funded by IFAD for Goods, Works or related Non-Consulting Services to cover items of similar nature not listed in the original contract may not exceed 10% of the contract value and require IFAD's No Objection (such extension shall be considered as Direct Contracting). However, extensions of existing contracts, issued in order to increase/decrease items already listed in the original contract as a result of evolutionary changes during contract execution and subject to

⁶ The choice among QBS, FBS and LCS shall be made by the borrower/recipient in the Procurement Plan based on the nature and circumstances of the relevant procurement activity following the guidance of the IFAD Procurement Handbook.

⁷ Any request for SSS by the borrower/recipient must be accompanied by a detailed justification, which will be carefully examined by IFAD to ensure that no alternative selection methods can be used. To receive IFAD's NO, it must be demonstrated that there is a clear advantage to SSS over competitive selection. Examples of such circumstances are listed in Section 6, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

⁸ Any request for SSS by a borrower/recipient must be accompanied by a detailed justification, which will be carefully examined by IFAD to ensure that no alternative selection methods can be used. To receive IFAD's NO, it must be demonstrated that there is a clear advantage to SSS over competitive selection. Examples of such circumstances are listed in Section 7, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

the contractual clauses governing such change may exceed 10%. In this case, the extension is subject to IFAD's No Objection.

- (iii) Procurement with Community Participation is allowed⁹.
- (iv) The packaging of Grants and Investment Agreements is encouraged, single awards to entities or individuals are discouraged.
- (v) Procurement from United Nations Agencies is allowed¹⁰.
- (vi) Secondary Procurement (orders against existing Long-term Agreements, national e-catalogues etc.) follows the regulations and applicable thresholds of the national legislation. The prior review threshold of the respective procurement category (goods, works, consulting services and related non-consulting services) applies.
- (vii) The borrower/recipient shall adopt and use the Standard Procurement Documents issued by

IFAD (for ICB and (if applicable) for consulting services) and the ones issued by National Authorities for other methods as long as the latter are supplemented/adapted to meet IFAD's SECAP standards and grievance mechanisms and the IFAD's Project Procurement Guidelines and IFAD Procurement Handbook. This includes adding the IFAD self-certification form at bidding and at contract stage and a certification that bidders have read, understood and agreed to be bound by the Privacy Policy of IFAD¹¹.

7. In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans;
2	General Procurement Notices
3	The first procurement activities using ICB, NCB, NS, ICS, QCS. QCBS, LCS, FBS and each procurement category (e.g. goods, works, consulting services and related non-consulting services).
4	The first call for grants
5	Not applicable. Force Account is not allowed.
6	The TOR (Job Description), Advertisement and selection proceedings for the hiring of any staff responsible for carrying out or administering procurement processes as part of the project
7	Award of any Memorandum of Agreement irrespective of its value
8	Award of any contract for goods and goods-related non-consulting services estimated to cost US\$ 70.000,00 or more;
9	Award of any contract for works and works-related non-consulting services estimated to cost US\$ 150.000,00 or more;

⁹ If the Project Design has provisioned for the involvement of communities of the borrower/recipient in the regions where the project is to be implemented in the procurement activities and has analyzed the regulatory environment, organizational capacity, skills, etc. of such communities, then community participation can be allowed for particular activities as outlined in the Project Design and details will be included here in the Procurement Arrangements.

¹⁰ If the Project Design has provisioned for the procurement from United Nations Agencies (See IFAD Procurement Handbook Module F1, Section 9) then this can be allowed for particular activities as outlined in the Project Design.

¹¹ The policy is accessible at <https://www.ifad.org/en/privacy>

10	Award of any contract for consulting services provided by firms estimated to cost US\$ 60.000,00 or more;
11	Award of any contract for individual consulting services estimated to cost US\$ 30.000,00 or more;
12	Award of any contract via Direct Contracting for Goods and related Non-Consulting Services above the low-value threshold specified in paragraph 6. b. (iv). Any contract below this low-value threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
13	Award of any contract via Direct Contracting for Works above the low-value threshold specified in paragraph 6. a. (iv). Any contract below this threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
14	Award of any contract via Single/Sole Source Selection of Consulting Services to firms above the threshold specified in paragraph 6. c. (vii). Any contract below this threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
15	Award of any contract via Single/Sole Source Selection to individuals above the threshold specified in paragraph 6. c. (viii). Any contract below this threshold does not need N.O. as long as the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.
16	Call for grants estimated to cost US\$ 60.000,00 or more;
17	Individual grant agreements above or equal to US\$ 30.000,00.

8. In addition, the following interim steps of the procurement process for Goods/Works/Services also require IFAD's No Objection for contracts designated for **"prior review"** in the project's procurement plan. For contracts designated for **"post review"** instead, IFAD reserves the right to request the review of any of the following interim steps on a sample basis and at any time. No downstream procurement action by the Borrower/Recipient can proceed until prior NO is issued by IFAD as to the propriety and compliance of the undermentioned steps with the IFAD PPF:

	Activity / Step of the procurement process for Prior Review Contracts	IFAD "NO" is required
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
3	Terms of Reference for consultancy services and related non-consulting services	Yes, usually as part of NO request for issue of the RFP (step 9 below)
4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
5	Composition of evaluation committees	Yes, usually as part of steps 9, 13 or 15
6	Prequalification report for Goods/Works/NCS	Yes

7	Shortlisting report for consultants' selection	Yes
8	The use of "prior lists" for shortlisting consultants	Yes
9	Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable	Yes
10	Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee	Yes
11	Amendments to the Bidding Documents and RFPs, CfPs	Yes
12	Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS)	Yes, usually as part of step 13, 14 or 15
13	Technical evaluation report (in two envelope procedures)	Yes
14	The combined evaluation report (in two envelope procedures)	Yes
15	The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS)	Yes
16	Decisions concerning abnormally low bids	Yes
17	Draft contract	Yes
18	Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS	Yes
19	Rejection of all bids/proposals and cancellation of the procurement procedure	Yes
20	Failure of negotiations and proceeding to next ranked consultant	Yes
21	Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS	Yes
22	Determination to reject a bid/proposal because of cross-debarment	Yes, usually as part of steps 13, 14 or 15
23	Amendments to contracts exceeding 10% in value (increase/decrease in quantities as a result of evolutionary changes). Additional unforeseen new items exceeding 10% of the contract value is a new procurement subject to Single Source/DC conditions.	Yes
24	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	Yes
25	Termination of a contract in Goods/Works/NC Services/Consulting Services	Yes
26	The use of Force Account	Yes
27	Meeting minutes of the approval committee/evaluation report for Grants	Yes

9. Debriefing and Protest procedures for all procurement activities shall be based on the procedures laid down in the IFAD Procurement Handbook including the requirements to issue a Notice of Intent to Award and the application of a standstill period.

10. IFAD must receive a duly completed Authorised User(s) Letter (see Annex 1), from the designated representative specified in Section E of the Agreement or his/her delegate, designating the name(s) of official(s) authorised to undertake actions in the IFAD's client project procurement systems which includes client project submitting electronic documentation, entering and updating fiduciary data and to request IFAD's No Objection.

The designated representative of the Borrower/Recipient may from time to time change the name/s of the Authorised User(s) or add new ones by written notice to IFAD.

11. The planning and implementation of all procurement activities should be routed through OPEN, IFAD's End-to-End Procurement system. OPEN enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection if applicable, to contract signature) according to the type (e.g. national competitive bidding, international competitive bidding) and object of procurement (e.g. civil works, goods, services). OPEN also has a function as a tracking system for non-procurement workflow (e.g. Project Implementation Manual – PIM, Annual Workplan and Budget).
12. All contracts, Memorandums of Agreements,¹² purchase orders and related payments must be recorded in the Contract Monitoring Tool of the IFAD Client Portal. The register of contracts contained within the Contract Monitoring Tool replaces the requirement to complete the Forms C-10 (Register of Contracts) and C-11 (Contract Payment Monitoring Form). Instead, an extract of the register of contracts must be downloaded from the Contract Monitoring Tool for submission together with Withdrawal Applications. The register of contracts must be kept up-to-date on a continuous basis.
13. All the above-outlined procurement terms and conditions shall also apply to project implementing partners and implementing agents approved by IFAD.
14. The aforementioned terms and conditions may be modified by IFAD during the course of Project implementation.

Anticorruption Measures

15. IFAD-financed and IFAD-managed activities and operations are governed under the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations; therefore, the Borrower/Recipient is required to familiarize itself with this Policy in order to comply with all applicable requirements therein.
16. Specifically, paragraphs 11 to 15 in Section II. D (iii) of the Policy states the actions that the Borrower/Recipient will take to prevent, mitigate and combat Prohibited Practices (i.e., fraud, corruption, collusion, obstruction and coercion, as defined by the Fund) in any IFAD-financed and/or IFAD-managed activity or operation. Borrowers/Recipients are instructed to, *inter alia*:
 - a. Prior to the implementation of an IFAD-financed and/or IFAD-managed operation or activity, inform the Fund of the arrangements made for receiving and taking action in response to allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations, in particular:
 - i. appoint **and inform the Fund of the** independent and competent national or local authority (or authorities, if the activities that follow fall under the jurisdiction of more than one authority) to be responsible for receiving,

¹² IFAD distinguishes between a Memorandum of Understanding, Memorandum of Agreement and a service contract in the following way:

Memorandum of Understanding: equivalent to a letter of intent, it cannot involve payments of any kind.

Memorandum of Agreement: it can involve payments but is only applicable to the public sector. It needs IFAD NO regardless of the value.

Commercial (service) contract: should be used for all private sector entities including NGOs.

reviewing and investigating allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations; and;

- ii. provide the name(s), position(s) and contact information of a focal point within that authority (or those authorities, as appropriate) and inform IFAD of any potential changes of that focal point.

- b. Borrower/Recipients are also encouraged to have in place, in accordance with effective whistle-blower protection measures and confidential reporting channels in order to appropriately receive and address allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed operations and activities.

Sexual Harassment, Sexual Exploitation and Abuse

17. IFAD has no tolerance for acts of sexual harassment, sexual exploitation and abuse in relation to its funded activities or operations. In April 2018, IFAD released its Policy to preventing and responding to Sexual Harassment, Sexual Exploitation and Abuse (the IFAD Policy¹³) to define obligations and responsibilities of all individuals who are holders of a contract with IFAD as well as third parties and recipients of IFAD funding.
18. According to Section 7.07 of the General Conditions, the Borrower/Recipient and the Project Parties shall ensure that the Project is carried out in accordance with the provisions of the IFAD Policy as may be amended from time to time. The Fund may take appropriate measures in line with such Policy.
19. In line with Section 34 of the Policy, the Borrower/Recipient shall ensure that contracts with Project Parties include: (i) provisions prohibiting acts of sexual harassment, sexual exploitation and abuse, (ii) obligation to immediately report incidents of sexual harassment, sexual exploitation and abuse to IFAD or to the Borrower/Recipient and (iii) provisions allowing for the immediate termination of the contract based on proven acts of sexual harassment, sexual exploitation and abuse.
20. Pursuant to Section 8.06. of the General Conditions, the Borrower/Recipient and Project Parties shall promptly inform the Fund of any non-compliance with the IFAD Policy. In accordance with Section 12.01 (xxv) of the General Conditions, the Fund may suspend, in whole or in part, the right of the Borrower/Recipient to request withdrawals from the Loan and/or Grant Accounts if, after consultation with the Borrower/Recipient, it determines that acts of sexual harassment, sexual exploitation and abuse were engaged in by representatives of the Borrower/Recipient or a Project Party or by any other recipients of the proceeds of the Financing without the Borrower/Recipient having taken timely and appropriate action, satisfactory to the Fund, to address such acts when they occur.
21. Borrowers/Recipients are also encouraged to have in place, effective whistle-blower protection against retaliation measures, victim support and assistance mechanisms and confidential reporting channels in order to receive, address and respond to allegations of sexual harassment, sexual exploitation and abuse relating to IFAD-financed and/or IFAD-managed operations and activities.

Accept, Excellency, the assurances of my highest consideration¹⁴.

Claus Reiner

Country Director

¹³ <https://www.ifad.org/en/document-detail/asset/40738506>

¹⁴ Correct opening and closing salutations can be found in the [CIAO system](#).