
President's memorandum

Proposed additional financing to the Federative Republic of Brazil

Planting Climate Resilience in Rural Communities of the North-East Project

Project ID: 2000002253

Document: EB 2025/LOT/P.12

Date: 4 November 2025

Distribution: Public

Original: English

FOR: APPROVAL

Action: The Executive Board is invited to approve the recommendation for the proposed additional financing contained in paragraph 60.

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Financing summary

Initiating institution:	IFAD
Borrower/recipient:	Brazilian Development Bank (BNDES)
Executing agency:	BNDES
Total project cost:	Total cost: US\$283.26 million
Amount of original IFAD loan:	US\$30 million
Terms of original IFAD financing:	Loan on ordinary terms to BNDES
Amount of additional IFAD loan:	US\$35 million
Terms of additional IFAD financing:	Ordinary, with a maturity period of 11 years, including a grace period of 3 years, subject to interest at a rate equal to the IFAD reference interest rate including a variable spread.
Original cofinancier(s):	Green Climate Fund (GCF)
Amount of cofinancing:	GCF: US\$99.5 million
Terms of cofinancing:	Loan (US\$65.0 million) and grant (US\$34.5 million)
Original contribution of borrower/recipient:	US\$73 million
Terms of contribution:	Loan
Additional contribution of borrower/recipient:	US\$25.8 million
Terms of additional contribution:	Loan (US\$15.4 million) and grant (US\$10.4 million)
Original contribution of beneficiaries:	US\$15.33 million
Additional contribution of beneficiaries:	US\$4.63 million
Amount of original IFAD climate finance:	US\$28.3 million
Amount of additional IFAD climate finance:	US\$34 million
Cooperating institution:	IFAD

I. Background and project description

A. Background

1. **Climate change context.** The Planting Climate Resilience in Rural Communities of the North-East Project (PCRP) is being implemented in Brazil's semi-arid north-east region. This region has historically faced severe droughts and water shortages, including the most severe drought from 2011 to 2016, which resulted in widespread indebtedness among farmers, forced migration, disease, malnutrition and estimated agricultural losses of US\$6 billion. Moreover, trends confirm an increasing frequency, severity and spatial extent of droughts, while temperatures have risen by approximately 0.8°C between 1901 and 2000 and are projected to increase by another 0.5°C to 2.0°C through 2040. Precipitation is expected to decrease overall despite wetter summers, with longer dry spells and greater variability affecting rural livelihoods.
2. **Poverty and food insecurity.** Fifty per cent of people living in the north-east face multidimensional poverty, and extreme poverty rates reach 40 per cent in some states. Rural infant mortality in the region is almost double the national average, while the illiteracy rate is three to four times as high. The region has an 83.6 per cent food insecurity rate, facing a persistent double burden of malnutrition, and progress is uneven. Traditional and Indigenous Peoples, who endure the highest poverty rates, are most nutritionally vulnerable.
3. **Productive paradigm shift.** The project supports smallholders in adopting climate -resilient productive systems (CRPS) that enhance water availability, flow and soil retention. Success hinges on behavioural changes, stronger rural organizations and targeted productive investments – areas where IFAD has proven expertise and a comparative advantage, drawing on its extensive investment portfolio in north-east Brazil.
4. **Inclusive financing.** The project prioritizes empowering the most disadvantaged groups, including women, youth, Indigenous and traditional communities. Its financing structure leverages IFAD's Green Climate Fund (GCF) accreditation to combine concessional loans and grants for the world's most vulnerable populations, while leveraging long-standing IFAD partnerships and experience in the north-east region with states and local stakeholders.
5. **Expanding regional impact.** To extend inclusive resilience across the north-east, the Brazilian Development Bank (BNDES) formally requested an additional US\$35 million from IFAD in September 2024 to include the states of Piauí and Paraíba. This will be financed by an IFAD loan from the Borrowed Resource Access Mechanism (BRAM) under the Thirteenth Replenishment of IFAD's Resources (IFAD13) envelope and guaranteed by the Federal Government. The additional financing will not extend the project's implementation period or alter its targets (see decision memo for more details).

B. Original project description

6. The official name of the project for IFAD purposes is Planting Climate Resilience in Rural Communities of the North-East Project, translated into Portuguese as *Semeando Resiliência Climática em Comunidades Rurais no Nordeste*. However, within Brazil, the project is referred to by a slightly different name: *Projeto Resiliência Climática no Nordeste – Sertão Vivo+*, as adopted by the Brazilian Government. To avoid confusion, it should be noted that both titles refer to the same project. The PCRP aims to transform the productive systems of nearly 250,000 family farms, benefiting about one million people, towards climate-resilient and low -emission agriculture. The project will integrate climate -resilient farming techniques and soil rehabilitation to improve ecosystem function, diversify crops and increase food and income security.

7. The project objective is to reduce the impact of climate change and increase the resilience of the affected population in the largely semi-arid north-east region. The project will support family farmers and their communities in reversing the decline in productivity caused by the degradation of agroecosystems. It will introduce technologies for water harvesting, storage and recycling, as well as diversification strategies to strengthen the resilience of rural populations.
8. The expected main outcomes are (i) increased resilience and enhanced livelihoods for the most vulnerable people, communities and areas; and (ii) improved diets, nutrition and food security in households.

II. Rationale for additional financing

A. Rationale

9. The original PCRP was designed to be implemented through an open and transparent public call conducted by BNDES to select states in the north-east region. The states were selected by the call launched in 2023. This additional financing will allow the project to be expanded. Financing is provided through BNDES on-lending via subsidiary agreements signed with state governments in the north-east region. The project's theory of change, objectives, scope, components, expected results, indicators and targets will remain entirely unchanged. The PCRP reaffirms IFAD's strategic commitment to a sustainable and inclusive rural transformation in north-east Brazil.
10. This decision is supported by a range of external factors that have affected the project environment since its design in 2018. These include a shift in national priorities following Brazil's 2023 presidential transition towards more pro-poor policies, the economic fallout from the COVID-19 pandemic in 2020 and more recent global disruptions, such as international conflicts and supply chain instability.
11. The additional financing will improve operational efficiency by optimizing the use of technical teams, information and knowledge systems, and infrastructure already mobilized, thereby reducing marginal delivery costs and preserving implementation momentum. Moreover, by expanding the project's scope it is anticipated that economies of scale will be achieved, meaning that the average cost of operation will decrease as the project scales, resulting in more efficient resource utilization and cost savings across the entire initiative.
12. **Expected benefits.** The additional financing will consolidate, deepen and scale the positive outcomes from components 1 and 2. It will reinforce improvements in income generation, productivity, land restoration and rural employment by sustaining the delivery of climate-resilient agroforestry and natural resource management interventions. Economic viability remains strong according to the updated economic and financial analysis (see relevant section below). The additional financing expanding the project's geographical scope will enhance its ability to achieve its intended results and impacts, safeguarding the delivery of long-term benefits and regional development.
13. **Implementation status.** Project performance is sound with no significant issues regarding implementation pace, audit findings or financial management having been flagged. The inception mission was carried out on 4 and 5 March 2024 with the participation of BNDES, GCF and the four selected states. The first supervision mission is scheduled for the last quarter of 2026, and the project's completion date is 30 June 2032. No extension will be requested because of the additional financing.

Special aspects relating to IFAD's corporate mainstreaming priorities

14. In line with IFAD's mainstreaming commitments, the project has been validated as:
 - ☒ Including climate finance

☒ Gender-transformative

☒ Nutrition-sensitive

☒ Youth-sensitive

15. **Climate change.** The direct correlation between increasing temperatures and higher rainfall variability leads to prolonged droughts and frequent periods of water scarcity. While these climate trends affect the entire economy in the north-east, several factors make smallholders particularly susceptible. They include: (i) the high incidence of poverty; (ii) limited ability to cope with prolonged droughts and harvest losses; (iii) water shortages and poor water quality; (iv) inadequate productive practices that further degrade the soil and its water retention capacity; and (v) deforestation of the highly biodiverse Caatinga ecoregion in the north-east, depleting vital ecosystem services there.
16. **Rural youth.** Youth migration from the north-east to urban areas increases the ageing of rural populations. Two in three Brazilian teenagers living in poverty are in the semi-arid areas of the north-east, which offer little attractive employment as local jobs typically provide a combination of low incomes and harsh working conditions, along with poor basic services.
17. **Gender.** Gender inequality is deeply pervasive in the rural north-east. Women and men have different roles in their households and communities, and women often have limited say in domestic and public affairs. They work in the home and in subsistence crop production, assuming a disproportionate share of the workload. Women manage most farms of less than five hectares, and 87.3 per cent of women farmers in Brazil receive no technical assistance. Finally, the incidence of gender-based violence is alarming.
18. **Nutrition.** Child stunting in the north-east has dropped steeply – from 22.2 per cent in 1996 to 4.8 per cent in 2022 – yet food insecurity and malnutrition remain pervasive. In 2021/22, 83.6 per cent of smallholder families in the north-east still faced some level of food insecurity; 64.7 per cent of adults were overweight; and among children under 5, 7.7 per cent were overweight, 6.9 per cent obese and 3.8 per cent underweight.
19. **Indigenous and traditional communities,** who depend on natural resources and ecosystem services, are particularly affected by climate change, marginalization and the lack of services. Extreme poverty affects Indigenous Peoples six times as much as other Brazilians. Infant mortality rates among Indigenous children are significantly higher than the national average.

B. Description of geographical area and target groups

20. The additional financing maintains the same geographical area as the original project (semi-arid area of the north-east region of Brazil) as well as the targeting framework to achieve identical outcomes. Its theory of change, objectives, scope, components and targets remain unchanged from the original financing. Small adjustments were made in the indicators.
21. **Geographical area.** The project's intervention area remains the same: Brazil's semi-arid north-east, which is the nation's poorest region and the area with the greatest concentration of poverty in Latin America, as well as the region most susceptible to climate change in South America. Fifty per cent of the region's residents are multidimensionally poor. Ecologically, the Caatinga biome, which is exclusive to Brazil and predominant to the semi-arid region, is South America's most climate-sensitive biome, encompassing 200,000 km² across 1,262 municipalities that are already classified as highly susceptible to desertification.
22. **Outreach.** The project will directly reach 250,000 smallholder families or approximately one million people. Poverty will be the primary targeting criterion,

with explicit targets of at least 40 per cent women and 50 per cent youth (aged 15 to 29). Indigenous Peoples and traditional communities will be prioritized wherever they are present.

23. **Target groups.** The project's main target groups are: (i) family farmers living in poverty and extreme poverty; (ii) rural women; (iii) rural youth; and (iv) Indigenous Peoples and traditional communities.
24. The project targeting strategy includes:
 - (i) **Geographical targeting.** Participating states were selected through an open public call that assessed the debt and counterpart financing capacities of all nine north-eastern states. To select the four states for the original financing, merit-based criteria also included indicators of poverty and climate vulnerability, drought exposure, rural water access, collective land structures and rural education infrastructure, such as family farming schools.
 - (ii) **Social targeting.** As an eligibility criterion for poverty targeting, at least 70 per cent of the families of each participating community need to be registered in the Unified Registry, for which family members' individual incomes may not exceed 50 per cent of the minimum wage.

C. Components, outcomes and activities

25. The following components will be replicated:
26. **Component 1. Climate-resilient productive systems** aims to strengthen climate-resilient production among family farmers by promoting diversified agroforestry systems, awareness, sustainable practices, inclusive leadership of women and youth, and market access.
 - **Subcomponent 1.2.** Support CRPS implementation in family farms and backyard gardens through group-based approaches, capacity-building and technical assistance to enhance climate resilience.
 - **Subcomponent 1.3.** Implement collective resilient investments to protect Caatinga ecosystems, promote CRPS in schools, and pilot productive use of desalination effluent.
 - **Subcomponent 1.4.** Build a farmers' network and promote local entrepreneurship for products and services that support farmer networks and local businesses through technical assistance, fostering microenterprises, tools and services that enable CRPS adoption.
27. **Component 2. Water access for production** aims to reduce the vulnerability of crops and livestock to climate variability by promoting efficient water access, storage and use through proven technologies that complement component 1.
 - **Subcomponent 2.1.** Build boardwalk cisterns for backyard gardens, small farm ponds and groundwater storage basins.
 - **Subcomponent 2.2.** Implement social technologies to increase water in the fields, such as building small farm ponds and groundwater storage basins.
 - **Subcomponent 2.3.** Implement treatment and reuse systems for household wastewater to allow smallholder households to treat and reuse their wastewater.
28. **Component 3. Knowledge management and scaling up** supports cross-cutting activities, including youth-led communication, knowledge management to systematize lessons learned and evaluate project outcomes, and support for local microentrepreneurs.

- **Subcomponent 3.1.** Raise awareness and build the capacities of women, youth and traditional communities, including an innovative participatory monitoring and evaluation (M&E) system to inform public policies.
 - **Subcomponent 3.2.** Drive scaling up, unlock policy barriers, and experiment with CRPS and a participatory resilience monitoring model; promote South-South and Triangular Cooperation (SSTC) and foster policy dialogue.
 - **Subcomponent 3.3.** Plan, monitor, evaluate and learn. The project will customize IFAD's M&E system and conduct an independent impact assessment.
29. Although not a separate component, management activities are grouped under a separate heading, including the establishment and operation of the state-level implementing units (SIUs). BNDES will act as the central project management unit (CPMU).

D. Costs, benefits and financing

Project costs

30. Original PCRPF financing totalled US\$217.8 million: an IFAD loan of US\$30 million (13.7 per cent), a GCF loan of US\$65 million (29.8 per cent), a GCF grant of US\$34.5 million (15.8 per cent), BNDES counterpart funding amounting to US\$73 million (33.5 per cent), and contributions from project beneficiaries totalling US\$15.3 million (7.0 per cent).
31. The additional financing requested by BNDES consists of an IFAD ordinary loan of US\$35 million from BRAM using IFAD13 resources, US\$25.8 million from BNDES (US\$15.4 million in loans and US\$10.4 million in grants) and US\$4.63 million from beneficiaries. The total financing will increase to US\$283.26 million, as shown in table 1.
32. The project's operating components are partially counted as climate finance, with the original total estimated amount of US\$28,3 million; the additional financing proposal is expected to contribute a further US\$34 million in climate finance (94.4 per cent of IFAD total project cost).
33. The additional financing costs by component are presented in table 2, by expenditure category and financier in table 3, and by component and project year in table 4.

Table 1

Original and additional financing summary

(Thousands of United States dollars)

	<i>Original financing</i>	<i>Additional financing</i>	<i>Total</i>
IFAD loan	30 000	35 000	65 000
GCF loan	65 000	-	65 000
GCF grant	34 500	-	34 500
BNDES	73 000	25 800	98 800
Beneficiaries	15 330	4 630	19 960
Total	217 830	65 430	283 260

Table 2

Additional financing: project costs by component and financier

(Thousands of United States dollars)

<i>Component</i>	<i>Additional IFAD loan</i>		<i>BNDES</i>		<i>Beneficiaries</i>		<i>Total</i>
	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>In-kind</i>	<i>%</i>	<i>Amount</i>
1. Climate-resilient productive systems	10 198	29	12 867	50	1 473	32	24 538
2. Water access for production	21 188	60	9 519	37	3 157	68	33 864
3. Knowledge management and scaling up	1 264	4	1 371	5	-	-	2 635
Project management	2 350	7	2 043	8	-	-	4 393
Total	35 000	100	25 800	100	4 630	100	65 430

Table 3

Additional financing: project costs by expenditure category and financier

(Thousands of United States dollars)

<i>Expenditure category</i>	<i>Additional IFAD loan</i>		<i>BNDES</i>		<i>Beneficiaries</i>		<i>Total</i>
	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>In-kind</i>	<i>%</i>	<i>Amount</i>
Investment costs							
1. Goods, services, works and grants	32 625		23 370		4 630		61 035
Total investment costs	32 625	93	23 370	91	4 630	100	61 035
Recurrent costs							
2. Management and administrative provision	2 350		2 430		-		4 393
Total recurrent costs	2 350	7	2 430	9	-	0	4 393
Total	35 000	100	25 800	100	4 630	100	65 428

Table 4

Project costs by component and project year (PY)

(Thousands of United States dollars)

<i>Components</i>	<i>PY1</i>		<i>PY2</i>		<i>PY3</i>		<i>PY4</i>		<i>PY5</i>		<i>PY6</i>		<i>PY7</i>		<i>PY8</i>		<i>Total</i>
	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>	<i>%</i>	<i>Amount</i>
1. Climate-resilient productive systems	141	0.1	16 866	15.7	24 041	22.4	25 936	24.2	22 234	20.7	13 378	12.5	3 151	2.9	1 601	1.5	107 348
2. Water access for production	-	0.0	23 080	16.0	45 749	31.6	46 913	32.4	26 583	18.4	2 339	1.6	-	0.0	-	0.0	144 664
3. Knowledge management and scaling up	642	5.3	1 575	13.0	1 969	16.3	2 447	20.3	2 356	19.5	1 510	12.5	610	5.1	966	8.0	12 077
4. Project management	782	4.1	2 572	13.4	3 037	15.8	3 068	16.0	3 068	16.0	3 053	15.9	2 981	15.5	612	3.2	19 172
Total	1 565	0.6	44 093	15.6	74 796	26.4	78 364	27.7	54 241	19.1	20 280	7.2	6 742	2.4	3 179	1.1	283 260

Financing and cofinancing strategy and plan

34. The IFAD additional financing will be provided in the form of a loan under the BRAM allocation on ordinary terms, subject to interest on the principal amount outstanding at a rate equal to the IFAD reference interest rate plus a variable spread, payable semi-annually in the loan service payment currency, and will have a maturity period of 11 years including a grace period of three years, commencing on the date on which the Fund determines that all conditions precedent to withdrawal have been fulfilled.

Disbursement

35. Disbursement arrangements under the additional financing will follow the same modalities as the original financing, as set out in the project implementation manual (PIM) and the project financial management and financial control letter (FMFCL) issued to BNDES. Disbursements to BNDES are tracked in separate segregated ledger accounts in United States dollars within the BNDES financial system, one for each financial instrument. Disbursements will be based on approved annual workplans and budgets (AWPBs), and withdrawals will be processed through the IFAD Client Portal using the applicable forms and documentation outlined in the FMFCL and the PIM. BNDES will make disbursements to the states in local currency into dedicated operational accounts opened and maintained by each participating state.

Table 5

Original project financing: status of financial disbursement by cofinancier to date
(Thousands of United States dollars)

Source	Original financing	%	Disbursed amount	%	Undisbursed
IFAD loan	30 000	13.8	1 882	6.3	28 118
GCF loan	65 000	29.8	5 657	8.7	59 343
GCF grant	34 500	15.8	3 564	10.3	30 936
BNDES	73 000	33.5	-	-	73 000
Beneficiaries	15 330	7.0	-	-	15 330
Total	217 830	100	11 103	5.1	206 727

Summary of benefits and economic analysis

36. The project demonstrates strong profitability and positive impacts, such as increases in income and employment, across various production systems and components. The updated (2025) economic and financial analysis, conducted over a 20-year horizon with a 10 per cent discount rate, confirms the project's strong viability and robust results, as follows:
- **Financial analysis:** Financial modelling of nine representative activities for components 1 and 2 (e.g. biodigesters, eco-efficient stoves) yields financial internal rates of return ranging from 10 per cent to 39 per cent, net present values varying from BRL 2,322 to BRL 219,941 and benefit-cost ratios above 1.
 - **Economic analysis:** Incorporating household savings and environmental externalities (avoided CO₂ estimated with the Environmental Externalities Account Tool), the analysis produces an economic internal rate of return of 12.49 per cent, an economic net present value of US\$48 million and a benefit-cost ratio of 1.12.
 - **Sensitivity analysis:** Sensitivity analysis tests indicate resilience to most cost and benefit shocks, with viability compromised only under a combined 20 per cent cost increase and a 30 per cent benefit reduction.

Exit strategy and sustainability

37. Project interventions have the potential to be scaled up by BNDES, federal ministries, state governments and other stakeholders. A decentralized

implementation model supports institutional sustainability: BNDES serves as the executing agency, while SIUs, public extension services and local partners carry out activities on the ground. This approach embeds interventions in regular state development agendas, strengthens local ownership and enhances institutional capacity. Farmers' organizations and civil society networks play a crucial role as strategic partners, ensuring that knowledge and skills acquired through the project's capacity-building efforts are consolidated and disseminated across the semi-arid north-east and other semi-arid regions of the Global South.

38. The exit strategy was built on two mutually reinforcing pillars. First, by improving household livelihoods through CRPS and providing reliable water-harvesting, storage and recycling infrastructure, the project creates immediate incentives for farmers to adopt and expand these practices. Second, it establishes measures for institutional sustainability that will endure beyond the project's duration. This includes continuous support for state technical-assistance and extension systems, enabling their agents to provide specialized CRPS advice, strengthening farmers' organizations to manage and scale these technologies, consolidating participatory planning tools, particularly the territorial resilience investment plans (TRIPs), which align interventions with locally approved priorities and budgets, and developing a knowledge management system that integrates project lessons into state and federal policy cycles.
39. By the end of the project, family farmers and community organizations are expected to be able to independently apply CRPS practices, while extension services will have the expertise to support them, and knowledge systems will inform public policies and sustain results.

III. Risk management

A. Risks and mitigation measures

40. Based on the integrated project risk matrix, the project's overall risk is rated as substantial at the inherent level and moderate at the residual level (table 6). This reflects the complexity of a multi-state, multi-actor operation in a challenging policy and environmental context. However, strong mitigation strategies and institutional arrangements have been incorporated into the design to ensure risks are managed effectively throughout implementation.
41. The most relevant risks and proposed mitigations for the additional financing are as follows:
42. Procurement risk remains substantial at the residual level, given the complexity of managing procurement using national systems across multiple state-level subprojects with varying degrees of capacity. To mitigate this risk, the project will standardize procedures and templates through the PIM, provide targeted capacity-building programmes for procurement teams and establish clear workflows to enhance coordination. Institutional capacity for implementation and sustainability is another concern, particularly with the onboarding of new states. The risk stems from potential delays in formalizing sub-loan agreements, staffing project management units (PMUs), and ensuring timely technical and fiduciary readiness at the state level. These risks will be mitigated by utilizing standard agreements, providing early-stage technical and fiduciary training to PMU staff, and through robust IFAD supervision missions, which will offer continuous technical and fiduciary support, thereby reinforcing institutional readiness throughout the implementation. Financial management risks include the project's complex financing structure involving multiple sources—IFAD, GCF, BNDES and six state governments—which may result in delays in fund availability and disbursement. These risks are compounded by GCF-specific reporting requirements, which require IFAD to manually consolidate Excel-based financial reports submitted individually by the states. Oversight by BNDES is primarily based on desk reviews of

supporting documentation using statistical sampling, with limited on-the-ground supervision. Relying exclusively on document reviews—without direct field verification—risks overlooking implementation irregularities, misreporting, or the misuse of funds that may not be evident from the documentation alone. To mitigate these risks, IFAD will complement BNDES oversight through direct fiduciary supervision during project missions, in line with its established practices. This will represent a considerable workload, given the number of participating states and the need to ensure consistency and compliance across decentralized structures.

43. For the additional financing, no new risks have been identified. Therefore, the same risks and mitigation measures established during the original project will continue to apply to the additional financing.

Table 6

Overall risk summary

<i>Risk areas</i>	<i>Inherent risk rating</i>	<i>Residual risk rating</i>
Country context	Substantial	Moderate
Sector strategies and policies	Substantial	Moderate
Environment and climate context	Substantial	Moderate
Project scope	Moderate	Moderate
Institutional capacity for implementation and sustainability	Moderate	Moderate
Financial management	Substantial	Moderate
Project procurement	Substantial	Substantial
Environment, social and climate impact	Moderate	Low
Stakeholders	Moderate	Moderate
Overall	Substantial	Moderate

B. Environment and social category

44. The project is classified as category B, indicating that potential environmental and social impacts are limited, site-specific and manageable. Any anticipated impacts are expected to be minimal and primarily related to the implementation of CRPS activities. The project's gender-transformative strategy aims to increase gender equality and empowerment. The project's environmental and social management plan ensures that all water-related interventions respect natural hydrological flows and comply with relevant health and environmental regulations. Each identified risk is matched with a specific mitigation measure, along with an allocated budget, clear institutional responsibility, and a defined implementation timeline. No new social and environmental risks and impacts are arising from the implementation. All design studies required by the Social, Environmental and Climate Assessment Procedures have been completed. In addition, a participatory Indigenous Peoples Plan will apply the principle of free, prior and informed consent. Adequate monitoring and verification of safeguard compliance has been provided for throughout the life of the project.

C. Climate risk classification

45. The project is classified as a high climate risk. An analysis of drought events between 1981 and 2016 reveals that drought intensity has increased over the last 36 years in north-eastern Brazil. Recent droughts have been more frequent and severe and affected a larger area, with significant socioeconomic impacts on the population (e.g. reduced productivity, food insecurity and migration).

IV. Implementation

A. Compliance with IFAD policies

46. The key team of consultants will follow IFAD's guidelines on qualifications and contractual arrangements. Financial management will comply with IFAD's fiduciary

standards, including transparent reporting and independent audits. The project will establish a robust M&E system aligned with IFAD's results-based management framework to track outcomes and ensure accountability. Environmental and social safeguards, including gender-based violence prevention campaigns and free, prior and informed consent for Indigenous communities, will be strictly followed as per IFAD's policies. Capacity-building activities, including training for SIUs, will be conducted to ensure compliance with IFAD's operational and fiduciary requirements. Anti-corruption measures will be enforced in line with IFAD's anti-corruption policy. Project procurement will be carried out in accordance with Brazilian legislation and use national and state-level procurement systems, applying current rules and procedures.

B. Organizational framework

Management and coordination

47. The additional financing will follow the original project management and coordination arrangements without changes. IFAD will be responsible for project supervision and reporting to GCF. BNDES, the executing entity and borrower/recipient of IFAD and GCF funds, handles domestic onlending to the participating states. The CPMU within BNDES headquarters will coordinate, monitor and report on implementation. SIUs will be responsible for state-level subprojects, handling coordination, procurement, financial management and M&E pursuant to agreements with BNDES. An advisory committee – which holds an annual meeting for transparency and accountability and includes federal agencies, civil society and state representatives, BNDES and the relevant ministries – will guide the CPMU and align with other government initiatives. State-level consultative councils, comprising beneficiaries and civil society, will review AWPBs and provide advice on TRIPs prior to their submission for approval to the CPMU.

Financial management, procurement and governance

48. **Financial management.** The CPMU will have overall responsibility for financial management and will be appropriately staffed to fulfill this role. The main financial management functions will be: (i) consolidate the AWPB; (ii) provide financial reporting; (iii) monitor liquidity requirements and prepare withdrawal applications; (iv) implement and maintain at central and state level an integrated financial management system or an alternative arrangement acceptable to IFAD; (v) ensure independent annual audits are carried out in time; and (vi) ensure that overall internal controls are effective and that participating states comply with subsidiary agreements, the PIM, and IFAD procurement and financial management procedures and requirements. The SIUs' responsibilities will include: (i) preparing the AWPB; (ii) financial management and reporting; (iii) collaborating with the auditors; and (iv) ensuring that the internal controls are sound and project activities are compliant with the subsidiary agreements, the PIM, and IFAD procurement and financial management procedures and requirements.
49. **External audit.** The project will be audited annually by a private auditing firm hired for this purpose, in accordance with international auditing standards. The consolidated annual audit report, including all sources of funding and participating states, will be submitted to IFAD within six months of the end of the fiscal year.
50. **Procurement.** Project procurement will be carried out in accordance with Brazilian legislation and use national and state-level procurement systems, applying current rules and procedures. All project bidding processes and contracts will contain IFAD anti-fraud and corruption provisions, as well as safeguards on sexual harassment, exploitation and abuse. The prior review arrangements to be detailed in the letter to the borrower/recipient will include the AWPB and the procurement plan.
51. **Governance.** A structure will be established to promote the integration and alignment with other state, regional and national programmes and policies. The

advisory committee will be composed of representatives from the Federal Government, civil society, states and BNDES, and will serve as a platform for discussing policies and strategies. In addition, IFAD will continue its strong engagement during implementation with key stakeholders such as farmers' and grassroots organizations.

C. Monitoring and evaluation, learning, knowledge management and strategic communication

52. A planning, M&E and learning system will be developed for results-based project management. Data and information collected on CRPS will support project learning, feedback, and improvement. This will also form the basis for knowledge management. Furthermore, documenting and sharing good practices and successes will support SSTC schemes. A resilience scorecard and index will monitor changes in families' resilience capacity.
53. The project will promote knowledge exchanges and young communicator networks inspired by popular education. A database, web portal and knowledge management materials will provide information to foster climate resilience throughout the north-east region, as well as other drylands in Latin America and Africa. The project will also encourage policy dialogue within the states.
54. The project introduces two key innovations. First, it features a governance structure that channels resources through a national development bank (BNDES) to participating states. This approach increases implementation efficiency and effectiveness compared to lending directly to the states. Second, the project leverages BNDES expertise in CRPS investments and resource mobilization. These capabilities enable BNDES to apply lessons learned to its agricultural credit lines for scalability and replication nationwide.

D. Proposed amendments to the financing agreement

55. A new financing agreement will be signed between IFAD and BNDES for the additional IFAD loan, which will be covered by a federal sovereign guarantee agreement provided by the Federative Republic of Brazil.

V. Legal instruments and authority

56. A financing agreement between BNDES and IFAD and a separate guarantee agreement between the Federative Republic of Brazil and IFAD will constitute the legal instruments for extending the proposed financing to the borrower.
57. BNDES is empowered under its corporate laws and under Brazilian legislation to receive financing from IFAD and the Federative Republic of Brazil is empowered under Brazilian law to guarantee the financing.
58. IFAD financing to BNDES represents funding to a national development bank, based on due diligence of the creditworthiness and implementation capabilities of BNDES.
59. I am satisfied that the proposed additional financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

60. I recommend that the Executive Board approve additional financing in terms of the following resolution:

RESOLVED: that the Fund shall provide a loan on ordinary terms to the Federative Republic of Brazil in an amount of thirty-five million United States dollars (US\$35,000,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Alvaro Lario
President

Updated logical framework incorporating the additional financing

The AF will not modify the Project's original logical framework. For more information, please check the Decision Memo document.

Below is the table of the original logical framework of the Project:

	Indicators					Means of verification			
Results hierarchy	Name	Baseline	Midterm	Original target	End target	Source	Frequency	Responsibility	Assumptions/notes
Outreach Number of persons receiving services promoted or supported by the project	1 Persons receiving services promoted or supported by the project					PMEL M&E System	Annual	Subprojects/PMEL	Macroeconomic stability - no changes in national policies.
	Females – Females	0	40 000	100 000	100 000				
	Male - Male	0	60 000	150 000	150 000				
	Young – Young People	0	50 000	125 000	125 000				
	Total number of persons receiving services - Number of people	0	100 000	250 000	250 000				
	1a Corresponding number of households reached								
	Households - Households	0	100 000	250 000	250 000				
	1b Estimated corresponding total number of households’ members								
	Household members - Number of people	0	400 000	1 000 000	1 000 000				
Project Goal Contribute to increasing food, water security and rural family income by implementing climate resilient farming systems and increasing carbon sequestration	(GCF) A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)					Impact Survey	Baseline, Mid-Term and End of Project	Independent consultancy firm	Macroeconomic stability - no changes in national policies.
	Households - Number	0	400 000	1 000 000	1 000 000				
	Females – Number	0	160 000	400 000	400 000				
	Males - Number	0	240 000	600 000	600 000				
	(GCF) CI A 2.2 Number of food secure households (in areas/periods at risk of climate change impacts					Specific study	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	Households - Number	16 082	31 088	53 000	53 000				
	Females – Number	2 414	4 663	8 040	8 040				
	Males - Number	13 668	26 425	45 560	45 560				
	(GCF) A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change					Specific study	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	CRPS in family farms and backyard gardens - Area (ha)–	0	11 500	23 000	23 000				
	Collective Resilient Investments - Area (ha)	0	15 000	36 124	36 124				

	Farmers Network - Area (ha)	0	7 150	25 000	25 000				
	(GCF) M3.1 Tonnes of carbon dioxide equivalent (t CO2 eq) reduced or avoided - buildings, cities, industries, and appliances					Impact Survey - Carbon-Balance Tool (EX-ACT)	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	MtCO - Number	0	17.567	35.135	35.135				
	(GCF) M4.1 Tonnes of carbon dioxide equivalent (t CO2 eq) reduced or avoided (including increased removals) - forest and land use					Impact Survey - Carbon-Balance Tool (EX-ACT)	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	MtCO - Number	0	2.3	4.6	4.6				
Development objective Transform family farmers' productive systems in the semiarid region by increasing production while simultaneously improving their resilient capacity to climate change	3.2.1 Avoided and/or sequestered greenhouse gas (CO2) emission					Impact Survey - Carbon-Balance Tool (EX-ACT)	Baseline, Mid-Term and End of Project	Independent consultancy firm	Maintaining alignment between national government climate change policies and project strategies and objectives.
	Number of tons - Number	-	-	-	-11 266 145				
	Hectares of land - Area (ha)	-	-	-	84 124				
	tCO2e/20 years - Number	-	-	-	-563 307				
	tCO2e/ha - Number	-	-	-	-133.4				
	tCO2e/ha/year - Number	-	-	-	-6.7				
	(GCF) A5.2 Number and level of effective coordination mechanisms					PMEL M&E System	Baseline, Mid-Term and End of Project	Subprojects/PMEL	
	Mechanism for sanitary regulations specific for family farmers - Number	0	1	1	1				
	Mechanism effective for legal reserve credit - Number	0	1	1	1				
	Mechanism enhanced to treat domestic violence, in the rural areas - Number	0	1	1	1				
	(GCF) A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools instruments, strategies and activities to respond to climate change and variability					Specific study	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	Households - Number	0	30 000	75 000	75 000				
	(GCF) M7.1 Energy intensity/improved efficiency of buildings, cities, industries and appliances as a result of Fund support					Specific study	Baseline, Mid-Term and End of Project	Independent consultancy firm	
	Biogas production (kwh) - Number	0	236 520	473 040	473 040				
	(GCF) M9.1 Hectares of land or forests under improved and effective management that contributes to CO2 emission reductions					PMEL M&E System	Baseline, Mid-Term	Subprojects/PMEL	

	Hectares total - Number	0	33 650	84 124	84 124		and End of Project		
	Hectares of Caatinga - Number	0	15 000	36 124	36 124				
	Hectares of Baja-caatinga pastures - Number	0	7 150	25 000	25 000				
	Hectares of Mono-culture crops will be converted into CRPS - Number	0	11 500	23 000	23 000				
Outcome 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	3.2.2 Families that report the adoption of environmentally sustainable and climate-resilient technologies and practices					Impact Survey	Baseline, Mid-Term and End of Project	Independent consultancy firm	Farmers will adopt and maintain SPRC CRPS correctly at a scale sufficient to generate benefits from improved fertility and increased water availability, which in turn will increase household resilience and income, as well as the provision of environmental and ecosystem services overall. Families will benefit from the yields from diversified CRPS production and incorporate these nutritional ingredients into their diets.
	Total number of household members - Number of people	0	39 680	99 200	0				
	Households - Percentage (%)	0	9.90	9.90	0				
	Households - Households	0	9 920	24 800	0				
	IE.2.1 Individuals demonstrating an improvement in empowerment								
	Young - Percentage (%)	0	50	50	50				
	Young - Young people	0	12 500	31 250	31 250				
	Total persons - Percentage (%)	0	25	25	25				
	Total persons - Number of people	0	25 000	62 500	62 500				
	Females - Percentage (%)	0	40	40	40				
	Females - Females	0	10 000	25 000	25 000				
	Males - Percentage (%)	0	60	60	60				
	Males - Males	0	15 000	37 500	37 500				
	1.2.8 Women reporting minimum dietary diversity (MDDW)								
	Women (%) - Percentage (%)	0	40	40	40				
	Women (number) - Females	0	4 302	10 755	10 755				
	Households (%) - Percentage (%)	0	75	75	75				

Output 1 Increase climate resilience for family farmers and	Households (number) - Households	0	10 755	26 888	26 888	PMEL M&E System	Annual	Subprojects/PMEL	Families will benefit from the yields from diversified CRPS production and
	Household members - Number of people	0	43 020	107 550	107 550				
	1.2.4 Households that reported an increase in production								
	Total number of household members - Number of people	0	42 880	107 200	107 200				
	Households - Percentage (%)	0	10.7	10.7	10.7				
	Households - Households	0	10 720	26 800	26 800				
	Women (%) - Percentage (%)	0	40	40	40				
	Women (number) - Females	0	4 288	10 720	10 720				
	(GCF) Increased soil moisture (%) during the dry season by applying CRPS								
	Increased - Percentage (%)	0	4	10	10				
	(GCF) Reduced agricultural losses during drought periods by applying CRPS as compared to the 2010-2020 baseline.								
	Reduced - Percentage (%)	0	4	8	8				
	(GCF) Families with increased resilience score through adoption of CRPS								
	Households - Households	0	68 000	170 000	170 000				
	Women - Percentage (%)	0	40	40	40				
	Women - Number	0	27 200	68 000	68 000				
	Young - Percentage (%)	0	50	50	50				
	Young - Number	0	34 000	85 000	85 000				
Output 1 Increase climate resilience for family farmers and	Territorial Resilience Investment Plans (TRIPs) finalized					PMEL M&E System	Annual	Subprojects/PMEL	Families will benefit from the yields from diversified CRPS production and
	Plans - Number	0	575	575	575				
	Families benefited by CRPS at Household level								

traditional communities while mitigating carbon emissions by applying CRPS.

Families led by women - Number	0	10 720	26 800	26 800
Families - Number	0	26 800	67 000	67 000
Families benefited by Collective Resilient Investments				
Families benefited - Number	0	41 200	103 000	103 000
Families that have established backyard gardens using CRPS				
Families - Number	0	14 000	36 000	36 000
(GCF) Hectares of land implementing agroforestry, backyard gardens, collective pasture management, using CRPS				
Hectares - Number	0	33 650	84 124	84 124
3.1.2 People benefiting from climate information services				
Persons provided with climate information services - Number of people	0	49 600	124 000	124 000
3.1.4 Number of hectares of land subjected to climate-resilient management				
Hectares of land - Number	0	33 650	84 124	84 124
1.1.8 Families benefiting from specific support to improve their nutrition				
Total persons participating - Number of people	0	14 340	35 850	35 850
Males - Males	0	8 640	21 600	21 600
Females - Females	0	5 700	14 250	14 250
Households - Households	0	14 340	35 850	35 850
Household members benefitted - Number of people	0	57 360	143 400	143 400
Young - Young people	0	7 170	17 925	17 925
1.1.4 People trained in production practices and/or technologies				
Females - Females	0	3 840	9 600	9 600

incorporate these nutritional ingredients into their diets.

	Males - Males	0	5 760	14 400	14 400				
	Young - Number	0	4 800	12 000	12 000				
	Persons trained - Number	0	9 600	24 000	24 000				
	(GCF) Number of micro-enterprises that develop tools and services for CRPS								
	Microenterprises - Number	0	28	70	70				
Outcome 2 Practices in efficient water capture, harvesting, storing and use to decrease vulnerability of livestock / crops to rainfall irregularity and prolonged droughts.	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	Maintaining alignment between national government climate change policies and project strategies and objectives.
	Households - Percentage (%)	0	63	63	63				
	Households - Households	0	11520	288 00	28 800				
	Total number of household members - Number of people	0	46080	115 200	115 200				
	(GCF) Families with increased resilience score through adoption rainwater harvest and storage								
	Families - Number	0	8 400	21 000	21 000				
	Females - Females	0	3 360	8 400	8 400				
	Males - Males	0	5 040	12 600	12 600				
	Young - Young	0	4 200	10 500	10 500				
Output 2 Improve water access to family farmers and traditional communities to reduce the impact of severe droughts by investing in small-scale technologies for harvesting, reuse, treatment and storage	1.1.2 Farmland under water-related infrastructure constructed/rehabilitated					PMEL M&E System	Annual	Subprojects/PMEL	Sustained interest, acceptance and implementation of project tools by family farmers.
	Hectares of land - Area (ha)	0	1 800	4 500	4 500				
	Total expected users - Number of people	0	8400	21 000	21 000				
	(GCF) Number of families with improved health by installing green septic systems and greywater reuse								
	Families with green septic systems - Number	0	2 000	5 000	5 000				
	Families with greywater reuse - Number	0	4 000	10 000	10 000				
	SF.2.1 Households satisfied with project-supported services					Impact Survey			

Outcome 3 Knowledge on climate-resilient practices managed and scaled up.	Household members - Number of people	0	280 000	700 000	700 000		Baseline, Mid-Term and End of Project	Independent consultancy firm	Learning with an approach that will prioritize training opportunities for vulnerable groups.
	Households (%) - Percentage (%)	0	70	70	70				
	Households (number) - Households	0	70 000	175 000	175 000				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers								
	Households (number) - Households	0	70 000	175 000	175 000				
	(GCF) Number of women, youth and traditional community members who report increased capacity and applying their knowledge								
	Families - Number	0	3 600	9 000	9 000				
	Females - Number	0	1 440	3 600	3 600				
	Males - Number	0	2 160	5 400	5 400				
	Young - Number	0	1 800	4 500	4 500				
	(GCF) Number of young communicators who report using social communication tools to register and systematize activities developed in communities							PMEL M&E System	
	Young - Number	0	166	414	414				
	(GCF) Use of climate information products/services in decision-making in climate sensitive sectors							Impact Survey	
	Families - Number	0	107 200	268 000	268 000				
Output 3 CRPS and small-scale water harvesting system disseminated in the NEB semiarid and abroad to increase climate resilience of vulnerable communities.	(GCF) Scale up locations (national and international) adopting CRPS and small-scale water harvesting technologies due to SSTC					PMEL M&E System	Annual	Subprojects/PMEL	Maintaining alignment between national government climate change policies and project strategies and objectives.
	Learning routes (national and international) - Number	0	3	7	7				
	(GCF) Number of policy changes that boost family farmers' inclusion and income								
	Number of policy - Number	0	1	3	3				
	Number of thematic policy dialogue studies completed								
	Thematic policy dialogue studies completed - Number	0	3	8	8				

Updated summary of the economic and financial analysis

Table A

Financial cash flow models

A)		Models									
Financial Analysis		Incremental Benefits (R\$)									
		Model 1a- Veg. Beds and Fruit trees 1- Grey Water Reuse	Model 1b- Veg. Beds and Fruit trees 2- Other Water infrastructu re	Model 1c- Veg. Beds and Fruit trees 3- Cisterns	Model 2a- Forage production and Agroforestr y diversificat ion in native lands 1	Model 2b- Forage production and Agroforestr y diversificat ion in native lands 2	Model 3a- Forage production and Agroforestr y diversificat ion in palm monocultur e lands 1	Model 3b- Forage production and Agroforestr y diversificat ion in palm monocultur e lands 2	Model 4- Micro- entreprene ur Business developme nt	Model 5- Bee- keeping	
		Yr 1	(10 587)	(16 656)	(23 066)	(11 097)	(10 579)	(7 644)	(8 407)	(95 554)	(113 841)
		Yr 2	(450)	1 305	1 563	(3 085)	(3 618)	(2 925)	(4 804)	(65 711)	29 641
		Yr 3	1 825	5 474	5 732	(2 957)	(3 183)	(2 482)	(4 361)	(36 505)	47 565
		Yr 4	2 094	6 282	6 540	(547)	(1 484)	(387)	(2 266)	(20 369)	52 539
		Yr 5	2 146	6 599	6 858	(2 941)	(1 455)	5 856	5 481	3 013	52 786
		Yr 6	2 157	6 794	7 053	2 070	(1 405)	406	395	54 660	52 786
		Yr 7	2 148	6 928	7 186	1 943	(485)	279	268	54 660	52 786
		Yr 8	2 231	7 337	7 595	5 390	5 773	3 727	8 674	54 660	52 786
		Yr 9	2 405	8 022	8 280	5 419	5 773	3 756	8 703	54 660	52 786
		Yr 10	2 610	8 634	7 872	888	5 773	8 342	24 702	54 660	41 269
NPV (R\$)		3 339	28 602	22 618	8 343	3 926	12 456	44 420	77 505	276 381	
NPV (U\$S)		742	6 356	5 026	1 854	872	2 768	9 871	17 223	61 418	
IRR (@10%)		14.8%	31.5%	24.1%	14.2%	12.1%	18.9%	25.5%	12.0%	39.4%	

Table B

Project costs and logframe targets

Project Costs and Indicators							
Total Project Costs (´ 000 USD)			\$ 60 000	Base Costs		\$ 60 000	UCP 1
Families	76 000	People	304 000	Youths		3 648	Adoption rate
Cost per Beneficiary	789	U\$S per person	197				75%
Costs and Components (000 U\$S)		Indicators					
Component 1	\$ 23 066	Agroforestry Investment Plans (PIPs)		20368			
		Schools		304			
		Investment Plans for sustainable natural resource management in Colective Areas (PIPs NRM)		18			
Component 2	\$ 30 704	Acces to Water- Cisterns		6080			
		Acces to Water- Micro-dams		304			
		Acces to Water- Re-use grey and black water systems		4560			
Component 3	\$ 6 230	Micro-entreprises to develop Agroforestry suppliers		22			
PMU	\$ 1	PMU		1			

Table B1: Proposed total project costs by component and financier (US\$ 000)

	IFAD		GCF Loan		GCF Grant		BNDES		Beneficiaries		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Comp1	27,238	25.4	22,56	21.0	31,37	29.2	18,377	17.1	7,802	7.3	107,347	37.9
Comp 2	32,948	22.8	42,44	29.3	-	-	57,119	39.5	12,156	8.4	144,663	51.1
Comp 3	2,464	20.4	-	-	2,892	23.9	6,721	55.6	-	-	12,077	4.3
PMU	2,35	12.3	-	-	239	1.2	16,583	86.5	-	-	19,172	6.8
Total	65	22.9	65	22.9	34,5	12.2	98,8	34.9	19,958	7.0	283,258	100

Table B2: Proposed total project costs by category and financier (US\$ 000)

Expenditure category	IFAD Loan		GCF Loan		GCF Grant		Government		Beneficiaries		Total	
							BNDES					
	Amount		Amount		Amount				Amount		Amount	
Goods, Services, Works, and Grants	62,845	24	65	24	34,5	13	83,124	31	19,958	8	265,427	94
Management and Administrative Provision	2,155	12	-	0	-	0	15,676	88	-	0	17,831	6
Total	65	23	65	23	34,5	12	98,8	35	19,958	7	283,258	100

Table C

Main assumptions and shadow prices

c)	Assumptions and Conversion factors			
	Assumption	Value	Input price	Price
FINANCIAL	Impact of Increased Income with Agroforestry Model 1a in poverty line	26%	Urea (kg)	1.10
	Increased Income with Agroforestry Model 1b in poverty line	21%	Millet (kg)	1.70
	Increased Income with Agroforestry Model 2a in poverty line	30%	Potassium (kg)	1.30
	Increased Income with Agroforestry Model 2b in poverty line	28.0%	NPK (kg)	0.88
	Increased Income with Agroforestry Model 3a in	35%	Fuel (lt)	5.50
ECONOMIC	Official Exchange Rate (OER)	4.5	Cut-off Rate- Financial	10%
	Shadow Exchange Rate (SER)	4.66	Cut-off Rate- Economic	10%
	Standard Conversion Factor (SCF)	1.04	CF- inputs	0.74
	Labour Conversion Factor	0.87	CF- outputs	1.07

CF Wages	0.87
CF Exchange rate	1.04
CF imported inputs	Parity prices tab
CF exported inputs	Parity prices tab
FC non tradable	1
FC exported outputs	Parity prices tab
SCF	0.9652
SER	4.66
OER	4.5

Table D
Beneficiary adoption rates and phasing

Adoption rate											
Adoption rate			75.00%								
Models	Unit	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Total	Families/Plano
Model 1a- Veg. Beds and Fruit trees 1- Grey Water Reuse	N° Families	-	1 496	1 496	1 496	1 496	-	-	-	5 985	
	Agg.	-	1 496	2 993	4 489	5 985	5 985	5 985	5 985	5 985	20
Model 1b- Veg. Beds and Fruit trees 2- Other Water infrastructure	N° Families	-	60	140	140	60	-	-	-	399	
	Agg.	-	60	200	339	399	399	399	399	399	20
Model 1c- Veg. Beds and Fruit trees 3- Cisterns	N° Families	-	684	1 595	1 595	684	-	-	-	4 558	
	Agg.	-	684	2 279	3 874	4 558	4 558	4 558	4 558	4 558	20
Model 2a- Forage production and Agroforestry diversification in native lands 1	N° Families	-	1 358	1 358	1 358	1 358	1 358	-	-	6 789	
	Agg.	-	1 358	2 716	4 074	5 431	6 789	6 789	6 789	6 789	20
Model 2b- Forage production and Agroforestry diversification in native lands 2	N° Families	-	1 358	1 358	1 358	1 358	1 358	-	-	6 789	
	Agg.	-	1 358	2 716	4 074	5 431	6 789	6 789	6 789	6 789	20
Model 3a- Forage production and Agroforestry diversification in palm monoculture lands 1	N° Families	-	1 358	1 358	1 358	1 358	1 358	-	-	6 789	
	Agg.	-	1 358	2 716	4 074	5 431	6 789	6 789	6 789	6 789	20
Model 3b- Forage production and Agroforestry diversification in palm monoculture lands 2	N° Families	-	328	328	328	328	-	-	-	1 310	
	Agg.	-	328	655	983	1 310	1 310	1 310	1 310	1 310	20
Model 4- Micro-entrepreneur Business development	N° Families	-	9	6	6	-	-	-	-	22	
	Agg.	-	9	16	22	22	22	22	22	22	3
Model 5- Bee-keeping	N° Plans	-	-	3	3	3	-	-	-	10	
	Agg.	-	-	3	7	10	10	10	10	10	18

Table E
Economic cash flow

Presents the overall project aggregation. Include the net incremental benefits of each financial model in economic terms, converted using shadow prices (table C) and multiplied by the number of beneficiaries (table D). Net incremental costs are to present all additional project costs. Last column indicates net cash flow to be used to calculate project

profitability indicators such as NPV and economic IRR (EIRR).

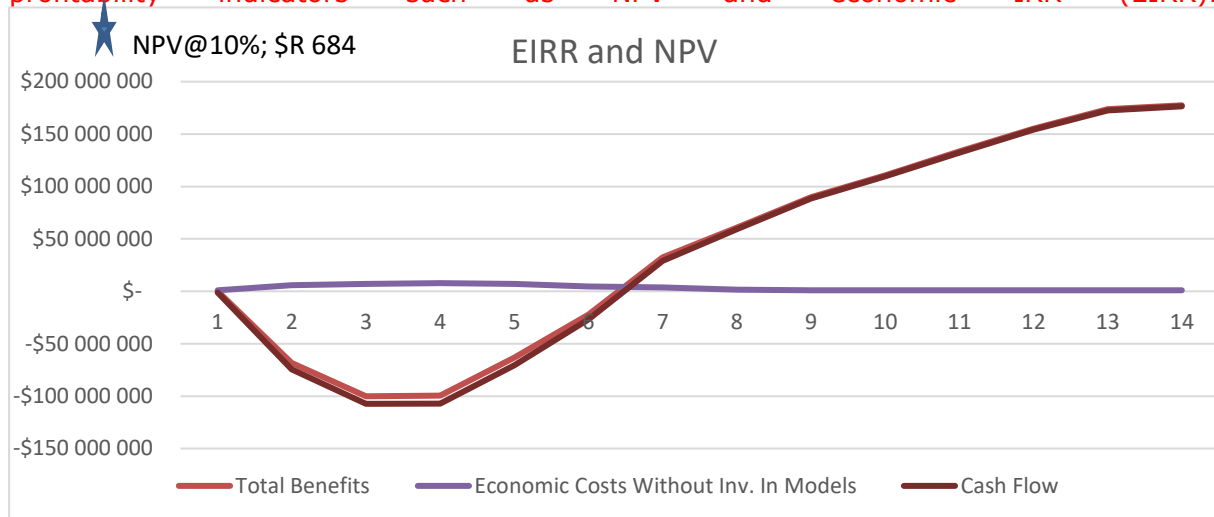


Table F
Sensitivity analysis

Sensitivity Analysis								
	Δ%	Risk				EIRR	NPV (USD)	NPV (R\$)
Base scenario						17.68%	56 556 680	254 505 059
Benefits	-10%	Combined risks on sale prices, yields, adoption rates				17.54%	50 250 701	226 128 154
	-20%					17.37%	43 944 722	197 751 249
Costs	10%	Increase in expenses and prices				17.56%	55 906 369	251 578 660
	20%					17.44%	55 256 058	248 652 261
Delay 1yr in Benefits		Adoption rate / delays				17.02%	45 042 646	202 691 905
Delay 2yr in Benefits						16.20%	34 489 802	155 204 109
External Shock every 2 yr		External shock (prices, quantities, climate)				16.80%	48 379 849	217 709 321
External Shock every 3 yr						16.75%	48 507 432	218 283 446
Mixed Scenarios		Costs	10%	Benefits	-10%	49 600 390	223 201 755	
			10%		-20%	43 294 411	194 824 850	
			20%		-20%	42 644 100	191 898 451	
			20%		-30%	24 376 474	109 694 135	
			20%		-10%	48 950 079	220 275 356	

Negotiated financing agreement

Loan No: 200000[]

Project name: Planting Climate Resilience in Rural Communities of the Northeast Project

FINANCING AGREEMENT

The BANCO NACIONAL DE DESENVOLVIMENTO ECONÔMICO E SOCIAL (BNDES), hereinafter referred to indistinctly as the "Borrower", "BNDES" or "Executing Entity", and the INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT, hereinafter referred to indistinctly as "IFAD" or the "Fund" and together with the Borrower as the "Parties", agree to enter into a financing agreement in order to cooperate in the Planting Climate Resilience in Rural Communities of the Northeast Project (PCRP), hereinafter referred to as the "Project", aimed at reducing the impact of climate change and increasing the resilience of the affected population in the semiarid Northeast Brazil, (hereinafter referred to as the "Agreement" or the "Financing Agreement").

WHEREAS

- A. The Parties designed the Project to reduce the impact of climate change and increase the resilience of the affected population in the largely semiarid Northeast Brazil (NEB) region.
- B. Consequently, the Parties entered into a Financing Agreement dated 24 October 2023 to finance the Project through financing from the Fund, the Green Climate Fund (GCF) and the Borrower.
- C. Through this Agreement, the Parties agreed to an additional financing to expand the Project;
- D. The Federative Republic of Brazil (the "Guarantor") has agreed with IFAD to enter into a guarantee agreement (the "Guarantee Agreement") to guarantee the payment of the principal, interest and other charges provided in this Agreement;
- E. The Borrower has undertaken to provide and cause to be provided the counterpart funds as referred under Section B.10;
- F. The Borrower for the purposes of financing the implementation of the Project shall enter into agreements with each Project Party ("Subsidiary Agreement");
- G. The Fund has agreed to provide financing for the Project as set forth in this Agreement;

NOW THEREFORE, the Parties hereby agree as follows:

Section A

1. The following documents collectively form this Agreement: this document, the Project Description and Implementation Arrangements (Schedule 1), the Allocation Table (Schedule 2) and the Special Covenants (Schedule 3).
2. The Fund's General Conditions for Agricultural Development Financing dated 29 April 2009, last amended as of December 2022 (the "General Conditions") are annexed to this Agreement, and all provisions thereof shall apply to this Agreement, except for the provisions identified herein. For the purposes of this Agreement the terms defined in the General Conditions shall have the meanings set forth therein, unless the Parties shall otherwise agree in this Agreement. In the event of contradiction or inconsistency between this Agreement and the General Conditions, the provisions of this Agreement shall prevail. In the event a defined term does not apply to this Agreement due to the nature/condition of the Borrower, the reference to it shall not apply either. For avoidance of doubt, this includes Article III, Sections 7.03, 7.13, 7.17, 9.04 (c) and 10.06 of the General Conditions.
3. The Fund shall provide an additional IFAD Loan ("Additional IFAD Loan") from its own resources, which the Borrower shall use to implement the Project in accordance with the terms and conditions of this Agreement.

Section B

1. The amount of the Additional IFAD Loan is thirty-five million United States dollars (US\$ 35 000 000).
2. Any withdrawals from the Additional IFAD Loan will be made in the Denomination Currency, or may be disbursed, upon request by the Borrower to the Fund, in another currency, corresponding to its equivalent in the Denomination Currency as of the applicable value date of withdrawal.
3. The Denomination Currency and the Loan Service Payment Currency of the Additional IFAD Loan shall be US\$.
4. In case of the Reimbursement Procedure (as described in the Loan Disbursement Handbook) the exchange rate to determine the equivalent amount in the Denomination Currency to evidence the Eligible Expenditures made in the local currency of the Borrower's country will be the buying rate determined by the Central Bank of Brazil on the date of the disbursement by BNDES to the Project Parties.

For the evidence of the application of the funds of the Advance Withdrawals (as described in the Loan Disbursement Handbook) the exchange rate to determine the equivalent amount in the local currency will be provided in the foreign exchange contract entered into by BNDES for the relevant transaction.

For the evidence of the application of the funds of the local counterpart, the Parties will adopt the same exchange rate criteria indicated for the Reimbursement Procedure above.

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5. The Additional IFAD Loan is granted on ordinary terms and shall be subject to interest on the principal amount outstanding of the Additional IFAD Loan at a rate equal to the IFAD Interest Rate including a variable spread, payable semi-annually in the Loan Service Payment Currency, and have a maturity period of eleven (11) years including a grace period of three (3) years, starting from the date the Fund has determined that all conditions precedent to withdrawal have been fulfilled.
6. The current IFAD Reference Interest Rate is the daily compounded Secured Overnight Financing Rate (SOFR).
- (a) When the Fund decides that the IFAD Reference Interest Rate requires replacement, the Borrower and the Guarantor will be notified by the Fund of such a decision (the "Notification") and of the proposed replacement for the IFAD Reference Interest Rate (the "Replacement Reference Rate").
 - (b) The Borrower, after the receipt of the Notification, may:
 - (i) accept the Replacement Reference Rate, with effect from the date as of which the Replacement Reference Rate will apply as indicated in the Notification; or
 - (ii) reject the Replacement Reference Rate.
 - (c) In case an agreement cannot be reached, the Borrower shall be required to prepay the Additional IFAD Loan in full, together with all accrued interest, on the next Payment Date following the rejection of the Replacement Reference Date without any prepayment premium.
7. The first day of the applicable Fiscal Year shall be 1 January.
8. Payments of principal and interest of the Additional IFAD Loan shall be payable on 15 December and 15 June.
9. There shall be a Designated Account (ledger account) in US\$ for registering funds exclusively from the Additional IFAD Loan for the Project, opened and operated by the Borrower.
10. The amount of local counterpart resources that the Borrower undertakes to provide and/or cause to be provided by the Participating States as defined in Section C.2 below in a timely manner for the execution of the Project, is estimated at an amount up to the equivalent to twenty-five million and eight hundred thousand United States Dollars (US\$ 25.800.000) or the equivalent *pro rata* amount in relation to the disbursed Financing as required by Project implementation.

Section C

1. In accordance with the IFAD policies, the Borrower has the overall responsibility of the implementation of the Project, and therefore, the execution of the Project will be carried out and coordinated by the Borrower as the Lead Project Agency, who, rather than implementing the Project activities directly, shall cause the other Project Parties to

implement the Project activities through provisions in the downstream agreements including but not limited to monitoring mechanisms, imposing penalties, conducting routine checks. The Borrower will have final decision-making power and approval authority in respect to the key decisions, as detailed in Schedule 1 hereto, regarding the overall implementation of the Project.

2. The States of Northeast Brazil selected for the Project ("Participating States") and any other entity in charge of planning, monitoring, evaluation and learning ("PMEL Unit"), are designated as the sole Project Parties, for the purposes of the General Conditions.

3. A Mid-Term Review will be conducted as specified in Section 8.03 (b) and (c) of the General Conditions; however, the Parties may agree on a different date for the Mid-Term Review of the implementation of the Project. The recommendations resulting from the Mid-Term Review, and the specified time for their implementation, will be mutually agreed upon between the Fund and the Borrower.

4. The Project Completion Date shall be 30 June 2032, and the Financing Closing Date shall be 31 December 2032, which may be extended upon joint agreement between the Fund and the Borrower.

5. Procurement of goods, works and services financed by the Financing shall be carried out in accordance with the provisions of the procurement laws of the Federative Republic of Brazil, and in line with the IFAD Procurement Guidelines as specified in the PIM.

6. The Borrower shall contractually require in the Subsidiary Agreements that, if applicable, all goods, works and services procured by the Project Parties do not violate or infringe any industrial property right or claim of any third party.

7. The Borrower shall also contractually require in the Subsidiary Agreements that, if applicable, all contracts entered into by the Project Parties for the procurement of goods and services directly or indirectly financed with the Financing contain appropriate representations, warranties and, if appropriate, indemnities from the contractors or suppliers with respect to the matters referred in this paragraph.

8. Any sub-project financed through a Subsidiary Agreement with resources from the Financing must comply with IFAD's environmental and social policies as provided in the Project SECAP and PIM, as well as the Brazilian legislation. Should there be higher environmental and social standards set forth in the Brazilian legislation, the Project Parties shall apply those.

9. Pursuant to Section 9.03 (a) of the General Conditions, each Fiscal Year, the Borrower shall have the accounts relating to the Project audited by independent auditors acceptable to the Fund in accordance with auditing standards acceptable to the Fund and the Conceptual Framework for Financial Reporting and Auditing of IFAD-financed Projects and Related Handbook.

10. The Parties may agree on alternative audit arrangements during the project implementation period by amending the PIM.

11. With regards to Section 8.02 of the General Conditions, the Borrower will manage Project monitoring data in conformity with its policies and systems to produce the Project reports as may be agreed and accepted by both Parties in the PIM.

Section D

1. The Fund will administer the Financing and supervise the Project.
2. As of the entry into force of this Agreement, the Borrower represents and warrants that:
 - (a) In the preparation of the Project, it acted in compliance with applicable Brazilian laws and regulations on anti-money laundering, countering the financing of terrorism, know your customer and other similar checks under Brazilian laws and regulations as may be applicable to the Borrower;
 - (b) In the preparation of the Project, it acted in compliance with Brazilian anti-bribery laws;
 - (c) It understands and accepts that an independent evaluator selected by IFAD may conduct additional interim and final independent evaluations to assess the performance of the Project in coordination with the Borrower;
 - (d) It understands and accepts that a Major Change may involve seeking a new No-Objection Letter and/or a new approval of the appropriate authority of IFAD. The definition of "Major Change" also applies to references to "material adverse effect" and "material adverse change" and means any event or proposed modification that will involve a significant change in, or the restructuring of, the Project scope, structure, design or objectives, including an adverse impact on the ability of the Borrower, including a change of its control, or on the ability of any Project Party, to the implementation of the Project.
 - (e) It shall communicate to IFAD when a financial default or a non-financial default that could imply a Major Change has occurred under the Subsidiary Agreements.
3. As of the entry into force of this Agreement, the Borrower covenants that:
 - (a) For the purpose of the obligations set forth in Article VII of the General Conditions, it shall act in compliance with IFAD's Policies and all Brazilian applicable laws and regulations on anti-money laundering, countering the financing of terrorism, know your customer, on preventing fraud and corruption and other similar checks under all Brazilian laws and regulations as may be applicable to it throughout the Project Implementation Period;

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- (b) Where applicable, it shall make the proceeds of the Financing available to any Project Parties in accordance with the Subsidiary Agreements and the eligibility criteria specified in the General Conditions and the Project Implementation Manual (PIM). For avoidance of doubt, with reference to Section 4.07 (b) of the General Conditions which provides that the Fund may from time to time exclude certain types of expenditures from eligibility, this refers to possible cases of ineligibility due to non compliance with this Agreement.
 - (c) It shall obtain, or contractually require any Project Party and any third party involved in the Project to obtain and maintain for the implementation of the Project, all necessary and applicable licenses, approvals and consents required by the applicable Brazilian Law;
 - (d) It shall promptly, upon its knowledge, inform IFAD of any credible and material risks or indications of money laundering, financing of terrorism, and/or on preventing fraud and corruption in relation to the Project and promptly take steps recommended by IFAD provided that the recommendation complies with Brazilian laws. Any information delivered by BNDES to the Fund under this provision shall be treated as confidential;
 - (e) It shall include an obligation to refund any unused resources of the Financing in its Subsidiary Agreements;
 - (f) It shall cooperate with the independent evaluator selected by IFAD for the purposes indicated in Section D.2 (d) above; and
 - (g) In case of a Major Change of the Project, as defined in Section D.2 (e) of this Agreement, it shall cooperate with IFAD to effectively implement the necessary steps required to address such event.

Section E

1. The Fund may suspend the right of the Borrower to request disbursements whenever it determines that any of the following designated additional grounds for suspension has occurred:

- (a) The PIM and/or any provision thereof, has been waived, suspended, terminated, amended or modified without the prior agreement of the Fund, and the Fund, after consultation with the Borrower, has determined that it has constituted, or is likely to constitute, a Major Change on the Project;
- (b) Any Major Change in the condition, constitution or establishment of the Borrower has occurred that has affected materially and adversely the ability of the Borrower to carry out the Project; and

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- (c) In relation to a specific Subsidiary Agreement, if a default has occurred under this Subsidiary Agreement, without the Borrower having taken appropriate timely action to remedy those events.
2. In case the disbursements are suspended under Section E.1 above, the Borrower will not be obliged (i) to make disbursements under the Subsidiary Agreements and (ii) to further implement the Project.
3. The Fund will notify any event referred to in Section 12.01 of the General Conditions and/or in Section E.1 of the Agreement to the Borrower, who shall, within at least 75 (seventy-five) days, which may be extended by IFAD at its discretion, from the date of the aforementioned notification:
- (i) provide such additional evidence to the Fund that would allow the Fund, in its sole discretion, to determine that such breach has not occurred or has been solved (as the case may be); or
- (ii) in the case of any of the events described in Section E.3 triggered by non-Eligible Expenditures, elect to submit to the Fund another proposed Eligible Expenditure or Subsidiary Agreement to replace the one notified by the Fund. Such proposed Eligible Expenditure or Subsidiary Agreement shall comply with the criteria of an Eligible Expenditure. In case the proposed Eligible Expenditure or Subsidiary Agreement does not comply with the criteria or is not acceptable to the Fund, the Fund will notify the Borrower and then all amounts outstanding in relation to the Eligible Expenditure or Subsidiary Agreement shall be refunded to IFAD by the Borrower within 60 (sixty) business days from the date of such notification is sent by the Fund without prejudice to Section B.4.
- 3.1. The Fund will only suspend withdrawals under Section 12.01 of the General Conditions or under Section E.1 of the Agreement after the lapse of the period of time from the receipt by the Borrower of the notification as stated in Section E.3 and provided BNDES does not clarify to the satisfaction of the Fund or remedy the notified event within such period. For the avoidance of doubt, the events and periods stated on Section 12.05 of the General Conditions, as amended by Section E.3.2 below, will only occur or be counted after the lapse of the period of time from the receipt by the Borrower of the notification as stated in Section E.3
- 3.2 Section 12.05 (b) and (c) of the General Conditions are modified as follows:
"The Borrower shall have failed to make a payment (and such payment has not been made by the Guarantor on behalf of the Borrower) of principal, interest, charges or any other amount due to IFAD under any contract (including loan agreements) guaranteed by the Guarantor."
4. When a suspension event occurs in connection with a specific Subsidiary Agreement, the disbursements will be suspended by IFAD in relation to the relevant Subsidiary Agreement.

5. The Parties executed the PIM on 24 October 2023. Any amendments to the PIM will be mutually agreed and entered into by both Parties.

6. Disclosure

- (a) Both Parties confirm that they enjoy a presumption of full disclosure and that the Financing Agreement will be disclosed in accordance with their applicable laws, rules and procedures.
- (b) The Borrower and the Fund hereby agree that, without prejudice to the Arbitration Rules (2012) of the Permanent Court of Arbitration, both Parties may publicise the text of the final arbitration award, provided that both Parties agree that there are no confidential obligations regarding the arbitration.

7. Any amendment to this Agreement shall only be made by mutual agreement between the Borrower and the Fund, after having obtained the Guarantor's concurrence to such amendment, including to the Project Completion Date and to the Financing Closing Date.

8. This Agreement shall enter into force once it is signed by both parties and subject to:

- (a) The Federative Republic of Brazil and the Fund signing a Guarantee Agreement; and
- (b) A legal opinion from the Procuradoria Geral da Fazenda Nacional - PGFN, confirming that the signature and performance by the Guarantor of the Guarantee Agreement has been duly authorised and ratified by all necessary approvals, and the Guarantee Agreement is legally valid and binding upon the Guarantor, and, within its competence, that the signature and performance by the Borrower of this Agreement has been duly authorised and ratified by all necessary approvals, and that this Agreement is legally valid and binding upon the Borrower, under Brazilian law in accordance with its terms;

9. The following are the designated representatives and addresses to be used for any communication related to this Agreement:

For BNDES:

Vivian Machado dos Santos Correa Pereira
Funding Department
E-mail: funding@bndes.gov.br

Celina Rangel Tura
Inclusion and Education Department
E-mail: ctura@bndes.gov.br

BNDES - Banco Nacional de Desenvolvimento Econômico e Social - BNDES Avenida
República do Chile 100, 4º andar

CEP 20031-917

For IFAD:

The President
International Fund for Agricultural Development Via
Paolo di Dono 44
00142 Rome, Italy

Copy to:

Procuradoria Geral da Fazenda Nacional – PGFN
Coordenação-Geral de Operações Financeiras da União
Ministério da Fazenda
Esplanada dos Ministérios, bloco P, 8º andar, Sala 803
CEP 70048-900 – Brasília, Distrito Federal, Brasil
E-mail: apoiocof.df.pgfn@pgfn.gov.br

Secretaria do Tesouro Nacional - STN
Coordenação-Geral de Controle da Dívida Pública - CODIV
Ministério da Fazenda
Esplanada dos Ministérios, Bloco "P", Anexo, Ala "A", 1º andar, sala 121
CEP 70048-900, Brasília, Distrito Federal, Brasil
E-mail: gecod.codiv.df.stn@tesouro.gov.br ; codiv.df.stn@tesouro.gov.br

Ministério do Planejamento e Orçamento
Secretaria de Assuntos Internacionais e Desenvolvimento
Esplanada dos Ministérios, Bloco K, 8º andar
CEP 70040-906
Brasília, DF
E-mail: seaid@economia.gov.br; cofiex@economia.gov.br

This Agreement, dated [XX], has been prepared in the English language in three (3) original copies, one (1) for the Fund, one (1) for the Borrower and one (1) for the Guarantor.

BNDES

Date: _____

INTERNATIONAL FUND FOR
AGRICULTURAL DEVELOPMENT

Alvaro Lario President

Date: _____

Schedule 1

Project Description and Implementation Arrangements

I. Project Description

Target Population. The Project beneficiaries shall consist of the following subgroups: (i) individual smallholder family farmers; (ii) traditional communities including quilombola families, agrarian reform settler families, ribeirinhos families, extrativistas families (non-timber products gatherers); and (iii) indigenous communities. Within all three subgroups, special consideration shall be given to women and youth. The Project will work with community organisations, all of which composed by small rural producers. The eligibility and prioritization criteria for the selection of beneficiary groups agreed by the Parties will be provided in the PIM.

Project Area. The Project shall be implemented in the semiarid areas of selected State(s) of Northeast Brazil (NEB). In the case of Maranhão, which currently has 6 municipalities in the semiarid, it will also consider Bill (Projeto de Lei) no. 2492/2019, which enlarges the semiarid area of the State to a total of 50 municipalities. The Participating States and participating municipalities were selected by the call launched in 2023, , based on criteria described in the PIM.

Objectives. The Project objective is to reduce the impact of climate change and increase the resilience of the affected population in the semiarid NEB. The Project will support family farmers and their communities in reversing the decline in productivity caused by the downward cycle of degradation of agroecosystem, adopting technologies for water harvesting, storage and recycling, and diversifying strategies to strengthen their resilience.

Project Components. The Project consists of three components that reinforce one another to promote climate resiliency as well as emission mitigation: 1) Financing of Climate Resilient Productive Systems (CRPS); 2) Financing of water access for production; and 3) Knowledge Management and Scaling-Up.

Component 1: Financing of Climate resilient productive systems (CRPS)

Output 1.1. Increase climate resilience for family farmers and traditional communities while mitigating carbon emissions by applying CRPS.

Activity 1.1.1 Selection of project areas and development of territorial resilience investment plans (TRIPs) will be developed for the participating communities to guide the project's collective and individual investments in CRPS as well as water harvesting and storage infrastructure.

Activity 1.1.2 Financing of CRPS in family farms and backyard gardens will support groups with household-based productive investments that will increase the resilience to the effects of climate change. The group-based approach will facilitate joint learning and the adoption of technologies and practices to implement CRPS with Technical Assistance

(TA) for capacity-building and initial monitoring. It includes productive farming and backyard gardens.

Activity 1.1.3. Financing of collective resilient investments. The activities will improve the ecosystem services in common areas, educate students on how to implement CRPS.

Activity 1.1.4 Build a Farmers Network and Promote local entrepreneurship for products and services that support family farming will be provided to facilitate the replication of CRPS, including TA teams operating in a territory-based intervention strategy.

Component 2: Financing of water access for production

Output 2.1 Improve water access to family farmers and traditional communities to reduce the impact of severe droughts by investing in small-scale technologies for harvesting, reuse, treatment and storage.

Activity 2.1.1. Financing of boardwalk cisterns for backyard gardens will support building boardwalk cisterns to irrigate backyard gardens.

Activity 2.1.2 Financing of eligible social technologies to increase water availability during periods of drought to construct small farm ponds and groundwater storage basins to irrigate small areas of land.

Activity 2.1.3 Financing of treatment and reuse systems for household wastewater will support the implementation of treatment and reuse systems for household wastewater.

Component 3: Knowledge management and scaling-up

Output 3.1 CRPS and small-scale water harvesting system disseminated in the NEB semiarid and abroad to increase climate resilience of vulnerable communities.

Activity 3.1.1. Raise awareness and build capacities of women, youth and traditional communities. This Activity will consist of financing for: i) highlighting the leading role of youth and women as 'knowledge managers and generators' and 'local talents'; ii) consolidating learning, exchange and replication of sustainable practices in communities; iii) facilitating dynamic M&E of socio-environmental impacts to inform public policy making.

Activity 3.1.2. Drive scaling-up, unlock policy barriers and experiment with CRPS and resilience participatory monitoring model. The activity will consist of the financing to promote south-south cooperation; facilitate discussions to unlock policy barriers; and experiment with CRPS and participatory monitoring of resilience.

Activity 3.1.3. Plan, Monitor, Evaluate and Learn (PMEL). The activity will consist of the financing the structured generation and use of monitoring and evaluation information on project progress, including independent surveys for baseline, mid-term review and closing evaluation, planning and monitoring activities and the conduct of systematizations and studies.

Project management

Although not a separate component, management activities are grouped under a separate heading, including the establishment and operation of the State-level Implementing Unit (SIUs) at state-level. BNDES will have the role as Central Project Management Unit (CPMU), and as per its guidelines the CPMU operating costs it finances are not included in the project costs.

II. Implementation Arrangements

The Lead Project Agency

BNDES will be the Lead Project Agency. It will operate the domestic sub financing to the Participating States and the PMEL in accordance with the Subsidiary Agreements.

For the purposes of Section C.1 of this Agreement:

(A) BNDES, in its capacity as Lead Project Agency, will have the final decision-making power regarding the overall implementation of the Project in respect to the following key decisions:

- (i) use of funds;
 - (ii) State selection and criteria for selecting the Project Areas;
 - (iii) criteria for selection of the Target Populations;
 - (iv) criteria for TRIPs approval;
 - (v) criteria for selection of the PMEL Unit;
 - (vi) requirements to procure technical assistance teams and other service providers, respecting the legal limits related to contracts with Public Administration; and
- (B) BNDES will verify the application of the criteria and requirements of item (A) above and will provide final approval to the relevant selection under its internal objectives, approvals, policies and procedures to be observed.

The Central Project Management Unit (CPMU)

BNDES' role as Central Project Management Unit ("CPMU") will be performed by BNDES' team within the BNDES' organizational structure of its units and divisions, which will, in conformity with Section C.1 of this Agreement, coordinate and monitor implementation, compile physical and financial information, report to the Fund and be overall accountable.

The Project Coordinator will be the Head of Department of [Productive Inclusion and Education] (or its successor unit, should the institutional structure change) appointed by BNDES. The Project Coordinator will delegate the project's day-to-day management

functions and other functions in connection with the Project to its staff in line with BNDES' organizational structure.

Annual Meetings for Transparency and Accountability

As necessary and at least once a year, CPMU will hold a meeting with representatives of the NDA, selected representatives and stakeholders to present the activities and achievements of the past year and the planning for the following year, as well as public policy issues related to the Project.

State-level Implementing Unit (SIUs)

In each participating State, a State-level implementing unit will be responsible for coordination, procurement, financial management and M&E of the state-level subproject comprising the activities of components 1 and 2, and the state-level activities of component 3. Each SIU will be headed by a Subproject Manager to be appointed by the state secretary responsible for the implementation of the Subproject, and the following additional key staff: Procurement Specialist, Financial Management Specialist, Agroforestry and Resilient Production Specialist, Youth, Gender and traditional communities Specialist, Communication and Knowledge Management Specialist and M&E Specialist; or as may be otherwise agreed by the Parties.

At the state level, Consultative Councils with the participation of beneficiaries and representatives from civil society and state secretariats, will review AWPBs and advise on TRIPs prior to approval by the State and their submission to the CPMU.

Selection of personnel

All Project staff must be suited to the needs of the Project.

BNDES Project staff will be designated by BNDES based on their institutional positions.

All Project Parties staff will be identified through open, competitive and transparent processes and will be selected based on their professional qualifications, experience and profile. For SIU staff, permanent public servants may be indicated directly by the State Secretary under which the sub-project will be implemented, provided they meet the professional qualifications, experience and profile.

Project Implementation Manual (PIM)

The Project will be executed, inter alia, as provided for in the PIM prepared and agreed by BNDES and IFAD.

The PIM details, among other things: (i) eligibility criteria for communities and beneficiaries; (ii) criteria for selecting the project areas within each State; (iii) criteria and process for the approval of TRIPs; (iv) criteria and process for the selection of the Participating States; (v) IFAD requirements for the Sub-Grant Agreements; (vi) the project monitoring and impact measurement guidelines; (vii) definition and principles for the Agroforestry System Investments (ISAs); (viii) requirements for the selection of the key

Project staff in the implementation of the Project; and (ix) content and requirements of the physical and financial reporting by the States and the PMEL Unit.

Any amendment to any section of the PIM requires agreement between BNDES and IFAD.

Subsidiary Agreements

The Lead Project Agency shall enter into a Subsidiary Agreement with each Project Party for the implementation of the subproject activities.

Each Subsidiary Agreement shall clearly specify the financing amounts, terms and the scope of the sub-project. The Subsidiary Agreements shall also, as applicable: (i) document the Project Parties' commitment from its counterpart; (ii) contain the Project Parties obligation to provide all Project information that BNDES reasonably requests; and (iii) specify that the Project Parties shall maintain a register of assets (e.g. goods and equipment) acquired with the proceeds of the Financing and that at completion of Project implementation, such assets will be transferred to the Target Population, and/or Project Parties.

For the purposes of Section D.3 (f) of the Agreement, the Borrower/Recipient and the Project Parties shall notify the Fund of any notice of an investigation by judicial or administrative authorities of fraud and/or corruption that are received in relation to any of the Project activities.

Annual Progress Reports

The Progress Reports referred to in Section 8.03 of the General Conditions, to be presented annually, shall present the physical and financial progress of the project against annual and overall targets in conformity with the information requirements specified in the PIM and according to BNDES policies and procedures.

Schedule 2
Allocation

1. *Allocation of Financing Proceeds.* (a) The Table below sets forth the Categories of Eligible Expenditures to be financed by the Additional IFAD Loan (US\$ 35 million), and their respective allocations:

Category	Additional IFAD Loan Amount Allocated (Expressed in US\$)
Component 1 Financing of Climate resilient productive systems (CRPS)	10 198 296
Component 2 Financing of water access for production	21 185 663
Component 3 Knowledge management and scaling-up	1 266 029
Project Management	2 350 012
TOTAL	35 000 000

2. Any reallocation by IFAD of amounts of the Financing to another category of Eligible Expenditures under Section 4.06 of the General Conditions must be approved in writing by the Borrower in advance, provided that no reallocation will be permitted between different financial instruments.

3. Overdrafts of up to 30% of each original allocation indicated in the Allocation Table above are authorised to be made by the Borrower. For the avoidance of doubt such overdrafts may be made without requiring changes to the Allocation Table and/or a request for prior authorisation.

4. **Financial Reporting Requirements.** Detailed information on the financial reporting requirements is addressed in the PIM.

Schedule 3

Special Covenants

In accordance with Section 12.01 (a)(xxiii) of the General Conditions, the Fund may suspend, in whole or in part, the right of the Borrower to request withdrawals from the Additional Loan account if the Borrower has defaulted in the performance of any covenant set forth below, and the Fund has determined that such default has had, or is likely to have, a material adverse effect on the Project:

Compliance with Environment and Social Safeguards.

1. The Borrower shall contractually require under the Subsidiary Agreements that the Project will be implemented in compliance with (i) the Project's Social Environmental and Climate Assessment Procedures (Project's SECAP), which includes the Environmental and Social Management Plan (ESMP), the Indigenous Peoples Planning Framework (IPPF), and the Stakeholder Engagement Plan; (ii) the Gender Assessment and Action plan; and (iii) the requirements of Brazilian law, specifically: (a) all water harvesting and storage investment in Component 2 will be designed to not interfere with ecological water flows or natural drainage of water bodies; (b) the treatment and reuse of household grey and black water shall comply with health and environmental standards, including applying required monitoring; and (c) adequate monitoring and verification of safeguard compliance will be applied throughout Project life.

2. The Borrower will contractually require that the project not support or finance, directly or indirectly, any activities with potential environmental and social risks that are equivalent to category A pursuant to the Environmental and Social Risks Categories, as well as any other activities listed in the exclusion list provided in the PIM; and that the measures included in the safeguards documents referenced above are undertaken, and the resources needed for their implementation are made available, in a timely manner.

3. The PIM further details how these requirements will be met.

4. *Anticorruption Measures.* The Borrower and the Project Parties shall comply with IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations as agreed by the Parties and detailed in the Project Implementation Manual (PIM), and in compliance with Brazilian law.

5. *Sexual Harassment, Sexual Exploitation and Abuse.* The Borrower shall contractually require in the Subsidiary Agreements that the Project is carried out in accordance with the provisions of the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse to the extent set forth under the Project's SECAP as agreed by the Parties and detailed in the Project Implementation Manual (PIM), and in compliance with Brazilian law.

GUARANTEE AGREEMENT

This GUARANTEE AGREEMENT is signed on _____, 202X between the FEDERATIVE REPUBLIC OF BRAZIL (hereinafter referred to as "Guarantor") and the INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (hereinafter referred to as "IFAD" or "the Fund" and together the "Parties").

WHEREAS:

Through an Additional IFAD Loan No. XXXXXXXX (hereinafter referred to as "Financing Agreement"), entered into on this same date, between IFAD and the BANCO NACIONAL DE DESENVOLVIMENTO ECONÔMICO E SOCIAL – BNDES (hereinafter referred to as "Borrower"), IFAD has agreed to provide the Borrower with Financing composed of an Additional IFAD Loan of thirty-five million United States dollars (US\$ 35 000 000), provided that the Guarantor guarantees the Borrower's payment obligations for the Additional IFAD Loan and remains fully bound until full payment of such obligations stipulated in the referred Financing Agreement and that the said Guarantor contracts the additional obligations specified in this Agreement.

The Guarantor, given the fact that IFAD signed the Financing Agreement with the Borrower, agreed to guarantee unconditionally and irrevocably the due and timely payment of the principal, interest and other charges of the Additional IFAD Loan, in accordance with the provisions of this Agreement.

THE PARTIES agree the following:

1. The following documents collectively constitute an integral part of this Agreement: this Agreement, the Financing Agreement, and the Fund's General Conditions for Agricultural Development Financing dated 29 April 2009, as last amended in December 2022 (the "General Conditions"). Unless the context otherwise requires, the several terms defined in the General Conditions and the Financing Agreement have the respective meanings therein set forth.
2. The Guarantor hereby unconditionally and irrevocably guarantees, as primary obligor and not as surety merely, the due and timely payment of the principal of, and the payment of interest and other charges on the Additional IFAD Loan due under the Financing Agreement whose terms the Guarantor declares to be fully aware of. These financial obligations do not include the commitment by the Borrower to provide additional resources to the execution of the Project.
3. The Guarantor undertakes not to take any action or allow, within the scope of its competence, measures to be taken that hinder or prevent the execution of the Project or obstruct the fulfillment of any obligation of the Borrower established in the Financing Agreement.
4. In cases of amendments to the Financing Agreement, the Borrower must obtain the prior approval of the Guarantor to any modifications or amendments to the Financing Agreement.
5. The Guarantor undertakes to:
 - (a) cooperate, within the scope of its competence, to ensure the fulfillment of the objectives of the Financing;

- (b) inform IFAD, as urgently as possible, of any fact that makes it difficult or may make it difficult to achieve the objectives of the Financing, or the fulfillment of the Borrower's obligations;
 - (c) within its competence, provide IFAD with the information it reasonably requests regarding the Borrower's situation;
 - (d) facilitate, within the scope of its competence, IFAD's representatives in the exercise of their functions related to the Financing Agreement and the execution of the Project; and
 - (e) inform IFAD, as urgently as possible, if it is, in compliance with its obligations as a joint debtor, making payments corresponding to the Financing Agreement.
6. The Guarantor agrees that both the principal and interests, and other charges on the Additional IFAD Loan will be paid without any reduction or restriction, free of any taxes, fees, duties or charges set forth in the laws of the Federative Republic of Brazil, and that both this Agreement and the Financing Agreement will be exempt from any applicable tax, fee or duty in connection with the execution, registration and execution of contracts.
 7. The Guarantor will not be released from any liability with IFAD until the Borrower has fully complied with all the financial obligations assumed in the Financing Agreement. In the event of any default by the Borrower, the Guarantor's obligation will neither be subject to any notification or challenge, nor to any procedural formality, demand or prior action against the Borrower or against the Guarantor itself. In the event of default by the Borrower, the Fund shall not be required to exhaust its remedies against the Borrower prior to enforcing its rights against the Guarantor. The Guarantor also expressly waives any rights, order or excussion benefits, faculties, favours or resources that assist, or may assist the Guarantor. The Guarantor declares itself aware that it will not release any of its liability to IFAD if there is: (a) an omission or abstention by IFAD in the exercise of any rights, powers or remedies that has against the Borrower; (b) IFAD's tolerance or agreement with the Borrower's default or delays that he may incur in fulfilling its obligations; (c) deadlines, extensions or any other concessions made by IFAD to the Borrower, provided that it has the prior consent of the Guarantor; (d) alteration, amendment or revocation, in whole or in part, of any of the provisions of the Financing Agreement, provided that they are made with the prior consent of the Guarantor.
 8. IFAD's delay or abstention in the exercise of the rights agreed in this Agreement cannot be interpreted as a waiver of such rights, nor as an acceptance of the circumstances that would allow it to exercise them.
 9. Any dispute that arises between the parties regarding the interpretation or application of this Agreement, which cannot be resolved by mutual agreement, will be subject to arbitration, as established in Section 14.04 of the General Conditions. For the purposes of this arbitration, all references made to the Borrower in the aforementioned Section apply to the Guarantor.
 10. Unless a written agreement stipulates another procedure, all notices, requests or communications that the contracting parties must send to each other under this Agreement must be made, without exception, in writing and will be considered

effective upon their delivery to the addressee, by any usual means of communication, at the address indicated below:

For IFAD:

The President
International Fund for Agricultural Development
Via Paolo di Dono 44
00142 Rome, Italy
Email: ifad@ifad.org

For the Guarantor:

Ministério da Fazenda
Procuradoria-Geral da Fazenda Nacional (PGFN)
Esplanada dos Ministérios, Bloco P, 8º Andar
CEP: 70.048-900 Brasília, DF
Brasil
Email: apoioconf.df.pgfn@pgfn.gov.br

Ministério da Fazenda
Secretaria do Tesouro Nacional
Coordenação-Geral de Controle da Dívida Pública
Esplanada dos Ministérios, Bloco P, Ed. Anexo, Ala A
1º andar, sala 121
Brasília – DF – Brasil
70048-900
E-mail: gecod.codiv.df.stn@tesouro.gov.br codiv.df.stn@tesouro.gov.br

IN WITNESS WHEREOF, the Guarantor and IFAD, each acting through its authorized representative, have signed this Agreement in three (3) copies, one for IFAD, one for Guarantor and one for Borrower, of equal content and for a single effect in Brasília, Brazil on the date indicated above.

FEDERATIVE REPUBLIC OF BRAZIL

INTERNATIONAL FUND FOR AGRICULTURAL
DEVELOPMENT (IFAD)

[Name]
[Position]

Alvaro Lario
President