

Document: EB 2019/127/R.29/Rev.1
Agenda: 8(d)(ii)(c)
Date: 12 September 2019
Distribution: Public
Original: English

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Investing in rural people

President's report

Proposed loan and grant

Republic of Mozambique

Small-scale Aquaculture Promotion Project

Project ID: 2000001979

Note to Executive Board representatives

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Executive Board — 127th Session
Rome, 10-12 September 2019

For: Approval

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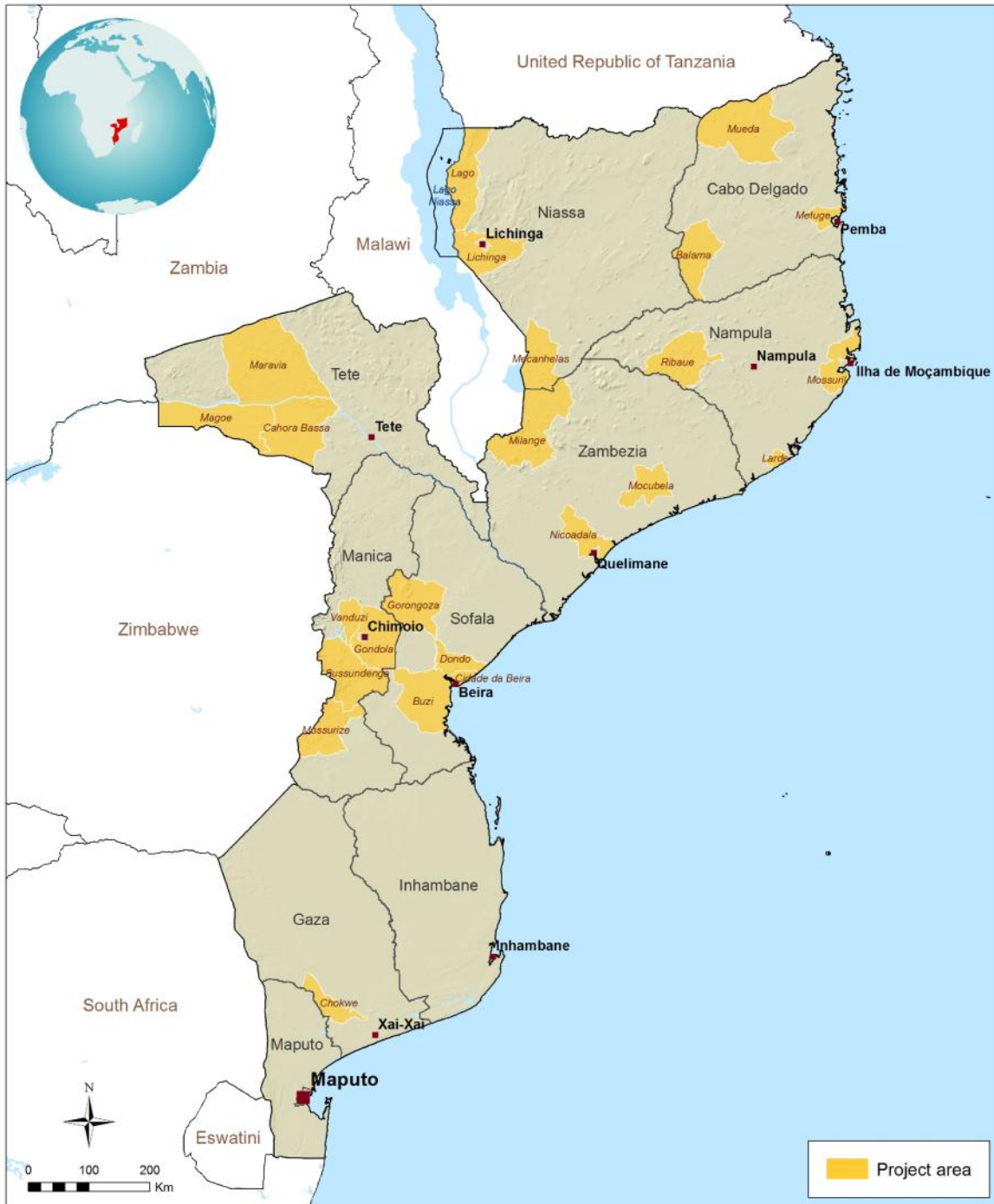
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Abbreviations and acronyms

EIRR	economic internal rate of return
ENPV	economic net present value
MIMAIP	Ministry of Sea, Inland Waters and Fisheries
PCU	project coordination unit
PROAQUA	Small-scale Aquaculture Promotion Project
PRODAPE	Small-scale Aquaculture Promotion Project
PROPESCA	Artisanal Fisheries Promotion Project

Map of the project area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
Map compiled by IFAD | 24-07-2019

Financing summary

Initiating institution:	IFAD
Borrower:	Republic of Mozambique
Grant recipient:	Republic of Mozambique
Executing agency:	National Institute for the Development of Fisheries and Aquaculture
Total PRODAPE cost:	US\$49 million
Amount of IFAD loan:	US\$8.6 million
Amount of IFAD DSF grant:	US\$34.4 million
Amount of IFAD climate finance:	US\$13.4 million
Terms of IFAD loan:	Highly concessional (maturity period of 40 years, grace period 10 years and fixed service charge as determined at the date of approval of the financing)
Contribution of borrower:	US\$3.1 million
Contribution of beneficiaries:	US\$2.9 million
Appraising institution:	IFAD
Cooperating institution:	Direct supervision by IFAD

Recommendation for approval

The Executive Board is invited to approve the recommendation contained in paragraph 58.

I. Context

A. National context and rationale for IFAD involvement

National context

1. The Republic of Mozambique's political landscape bears the scars from the 15-year civil war that followed its independence, which left the country and its economy in ruins.¹ The Front for the Liberation of Mozambique (FRELIMO) has won five successive presidential and parliamentary elections since the first was held following the formal peace agreement in October 1992. Presidential, legislative and provincial elections are scheduled for October 2019. For the first time, provincial governors will be elected at provincial elections.
2. Over the last two decades up to 2015, Mozambique experienced economic growth of over 7 per cent per year, sustained largely by market-based reforms, public investment in infrastructure and large flows of foreign direct investment towards mega-projects in the mining and natural gas sectors. Mozambique is slowly recovering from cyclones Idai and Kenneth, which devastated the country in March and April 2019.
3. Mozambique's total population is estimated at over 28.9 million people, with approximately 70 per cent living in rural areas. The country has a rapidly growing young population (45 per cent of children were under 14 in 2017). Malnutrition is a concern, with a 43 per cent prevalence of child stunting. Mozambique scored 0.879 on the Gender Development Index, ranking 181st out of 188 countries, with low equality on Human Development Index scores between women and men.
4. Mozambique's National Development Strategy for 2015-2035 outlines the vision for the country's development. The Government's 2015-2019 Five-Year Plan lays out priority areas of intervention, including priorities for growth in the aquaculture sector. The 2008-2017 Aquaculture Development Strategy, currently under review, aimed to transform aquaculture production from subsistence to commercial level by injecting a business approach into the sector.
5. The fisheries sector has gradually developed a range of institutional capacities assumed by different government players, including the Ministry of Sea, Inland Waters and Fisheries (MIMAIP), which has overall policy, regulatory, coordination and sector oversight responsibilities. The National Institute for the Development of Fisheries and Aquaculture (IDEPA) is responsible for aquaculture development.
Special aspects relating to IFAD's corporate mainstreaming priorities
6. Gender. Gender inequality and HIV/AIDS constitute social risks that, if not addressed, could compromise socio-economic progress. Gender roles ascribed to women result in their facing multiple barriers to gender equality, including lower levels of education, access to opportunities and income than men. Women have limited ownership and control of productive resources, smaller plots of farmed land and tend to own animals of low economic value.
7. Youth. Approximately 37 per cent of the country's youth are unemployed. Vocational training opportunities have grown in the past few decades, but are still inadequate to provide young people with the skills required by the labour market. Specifically, youth lack financial and social capital to access the few opportunities available in rural areas.

¹ World Bank, Country Partnership Framework for the Republic of Mozambique, March 30, 2017.

8. Nutrition. Mozambique has a three-fold nutritional burden (chronic undernutrition, micronutrient deficiency and emerging issues with overweight and obesity in urban areas). Nationally, 43 per cent of children under the age of five are stunted, 6 per cent are wasted and 15 per cent are underweight. Prevalence of low birth weight in Mozambican children is estimated at 14 per cent.
9. Climate change. Mozambique's vulnerability to climate change was apparent in the recent cyclones that hit the country in March and April 2019. Localized floods occur almost every year, causing casualties and loss of economic assets. Frequent droughts and late rains also lead to the loss of crops, seeds and animals, and generate pockets of food insecurity throughout the country.

Rationale for IFAD involvement

10. Aquaculture could play an important role in Mozambique's socio-economic development, offering a cheap protein source for improved diets, jobs and income-generation opportunities, especially in rural areas. Climatic conditions favour investment in aquaculture and the country is home to a wide variety of fish, which could potentially be farmed, both to address the country's nutritional challenges and to sell to the regional export market. Although the Government of Mozambique has recognized this potential, aquaculture development is held back by the existence of bottlenecks across the entire value chain, especially access to critical inputs such as fish feed and seed, and services.
11. IFAD has supported the fisheries and aquaculture sector in Mozambique since 1993 through six projects (loans and grants), which provide a basis for scaling up investments in the aquaculture sector. The Small-scale Aquaculture Promotion Project (PRODAPE) is therefore designed to address key challenges along the aquaculture value chain and scale up lessons learned thus far in the sector.

B. Lessons learned

12. The PRODAPE design was informed by lessons from IFAD's experience in Mozambique and other countries in the region, as well as reports by the Independent Office of Evaluation (IOE).² Key lessons and recommendations are as follows:
 - (i) Focus on the rural poor and the most vulnerable groups, such as women, youth and people with HIV. A bottom-up approach to reducing food insecurity, malnutrition, poverty and vulnerability is compatible with value-chain development;
 - (ii) The constraints on aquaculture are multi-dimensional, and therefore a holistic approach to capacity-building is required at the individual, community, and institutional levels to meet farmers' training needs.
 - (iii) IFAD and the Government should ensure that the role of the private sector is clearly articulated as a key partner in aquaculture development.
 - (iv) Project design should include due attention to gender mainstreaming, and specific activities should be carried out to empower women and youth to become more prominently involved in productive activities.
 - (v) A business approach to aquaculture, linking smallholder producers with good productivity levels to larger commercial players, input suppliers, technical assistance and other services, is crucial for achieving sustainable aquaculture development.

² See Impact Evaluation of the Sofala Bank Artisanal Fisheries Project in Mozambique (September 2016) and the Country Strategy and Programme Evaluation (CSPE) (February 2017).

II. Project description

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

13. PRODAPE is a five-year investment within a long-term (15-year) IFAD and Government partnership in aquaculture in Mozambique. For IFAD, this approach follows on the recommendations for programmatic investments in the fisheries sector made by the last two IOE evaluations carried out in Mozambique. PRODAPE's goal is to contribute to poverty reduction and enhance food security and nutrition among rural households. The project development objective is to increase production, consumption and incomes among rural households and other actors in the aquaculture value chain. PRODAPE is well aligned with the country strategic opportunities programme (COSOP) strategic objectives and contributes to IFAD's strategic objectives through increased production, increased market participation and greater resilience to climate change. The project will also contribute to IFAD's mainstreaming agenda.
14. Project area. PRODAPE will target 23 districts in seven provinces, starting with seven districts with high aquaculture potential and expanding on the basis of demand and increased capacity to implement project activities. The target districts were selected in line with criteria agreed upon with IDEPA, namely: (i) favourable environmental, climate and natural resource conditions for aquaculture; (ii) existence of water bodies capable of providing water in sufficient quantity and quality for aquaculture activity; (iii) existence of potential markets; (iv) high poverty levels, food and nutritional insecurity; and (v) existence of access roads.

Targeting strategy

15. PRODAPE will implement a comprehensive social inclusion strategy to ensure that households of different socio-economic groups are provided with opportunities to participate in the aquaculture value chain. The main elements of this strategy include: (i) establishing quotas for poorer and more disadvantaged community members; (ii) identification and provision of tailored support packages for each social group; (iii) ensuring local participation in relevant decision-making process during planning and implementation; and (iv) integration of social mentoring to address pressing social risks and barriers that impede the sustainable engagement of youth and women.

Target groups

16. The project aims to reach 88,900 people (17,800 households), of whom 87,500 (17,500 households) are producers at various levels of the aquaculture value chain. Across all socio-economic strata, 20 per cent of beneficiaries will be women-headed households.
17. PRODAPE will reach beneficiaries at both community and institutional levels. Community-level beneficiaries will include: (i) smallholder fish farmers using earthen ponds and cage culture; (ii) rural households already engaged in aquaculture alongside crop and/or livestock production and wishing to progressively expand and integrate these farming systems; (iii) rural aquaculture entrepreneurs wishing to engage in non-production levels of the aquaculture value chain; (iv) women, who represent 40 per cent of total beneficiaries and to whom 50 per cent of financial products targeting the value chain will be allocated; (v) young people willing to engage in aquapreneurship; and (vi) broader communities and individuals working in markets targeted by PRODAPE. Institutional level beneficiaries will comprise staff of all institutions involved in the project and extension agents, who will be provided with opportunities to engage in aquaculture activity including privatized extension services.

B. Components/outcomes and activities

18. The project will have the following components: (i) disaster risk reduction and response (component 0); (ii) small-scale aquaculture productivity (component 1); (iii) development of aquaculture business (component 2); and (iv) project management, policy and institutional development (component 3).
19. Component 0 aims to reduce project and beneficiary vulnerability to future climate hazards, and provides a programme-wide window for all preventive and response measures and allocation of additional dedicated funding. This is expected to facilitate and expedite the implementation of level 2 restructuring of the project in the event of an emergency or disaster and in line with IFAD's 2018 Policy on Project Restructuring and IFAD's 2011 Guidelines for Disaster Early Recovery.
20. Component 1: Small-scale aquaculture productivity. This component will support the establishment and consolidation of local commercial input supply networks for fish feed and fingerlings at competitive and affordable prices. It will also promote fish productivity, through climate smart technologies and environmentally sustainable production techniques suited to the different agro-ecological zones. The component will be implemented through two subcomponents:
 - Subcomponent 1.1: Agribusiness for input supply. The subcomponent will support the development of fish seed (fingerlings) and fish feed systems using public-private-producer partnerships (4Ps) to stimulate private sector and community participation in the production of inputs.
 - Subcomponent 1.2: Smallholder aquaculture production capacity development. This subcomponent will promote a range of sustainable fish production technologies, namely earthen ponds, fish ponds integrated with livestock and crops, cage culture in large inland water bodies and modern aquaponic systems.
21. Component 2: Development of aquaculture business. This component's objective is to address challenges related to weak institutions, missing and incomplete markets and lack of access to services faced by aquaculture value chain actors – especially smallholders. The component will be implemented through the following subcomponents:
 - Subcomponent 2.1: Support to development of aquaparks. The development of aquaparks will be supported as a vehicle to integrate smallholder fish farmers into the aquaculture value chain.
 - Subcomponent 2.2: Market linkages and business partnerships. The subcomponent will develop practices to improve cultured fish handling, collection, marketing and distribution. It will provide support to the establishment of business partnerships between small and commercial fish producers and promote community-level savings and credit groups.
 - Subcomponent 2.3 Access to financial services. This subcomponent will facilitate the provision of appropriate, affordable and sustainable financial and business support services, through the ongoing Rural Enterprise Finance Project and the participation of rural microfinance institutions using financial products such as crowding-in funds and lines of credit.
22. Component 3: Project management, policy and institutional development. This component will be implemented through three subcomponents:
 - Subcomponent 3.1: Policy and institutional development. Three key policy areas will be supported by PRODAPE: (i) an enabling environment for viable trading in fish feed and fish to expand local production; (ii) incentives to attract private sector investments and ensure inclusion; and (iii) equitable access by smallholder producers to aquaparks under the new strategy of concentrated and consolidated production.
 - Subcomponent 3.2: Mainstreaming nutrition and addressing social risks.

This subcomponent will improve nutrition programming and implementation, and will reduce social risks that hinder sustainable engagement of smallholder fish farmers and limit their ability to take advantage of emerging opportunities in the aquaculture value chain.

Subcomponent 3.3: Project management and coordination. This subcomponent will cover core management responsibilities.

C. Theory of change

23. PRODAPE aims to support the development of the aquaculture value chain with a view to reducing poverty and improving food security and nutrition in target project areas. This will be done by increasing smallholder fish farmer production, productivity and profitability. The project seeks to address the supply and demand constraints encountered in Mozambique's incipient aquaculture value chain.
24. PRODAPE's theory of change is built on the assumption that, by strengthening the capacity of all value-chain stakeholders, including fish inputs producers, fish producers, government staff and service providers, the aquaculture fish value chain will work more efficiently and effectively. Furthermore, addressing policy, institutional, infrastructural and production gaps will create an enabling environment for the development of sustainable 4Ps that integrate small-scale aquaculture farmers.

D. Alignment, ownership, and partnerships

25. PRODAPE contributes to some of the Sustainable Development Goals linked to IFAD results: SDG1 on poverty, SDG2 on hunger and food, SDG5 on gender inequality and SDG14 on conservation and sustainable use of aquatic resources.
26. The project design is aligned with national priorities on strengthening the aquaculture sector to move towards a commercial orientation, underpinned by the strong involvement of smallholder farmers. PRODAPE also supports the Government's interests in reaching out to women, poor and vulnerable households and young people of different ages.
27. The PRODAPE design and implementation arrangements comply with the key IFAD corporate policies, frameworks, strategies and plans. In addition to contributing to achievement of the three core objectives of IFAD's Strategic Framework 2016-2025, the project contributes to meeting key IFAD11 commitments: 2.2, increase focus on the poorest and most vulnerable people in each country; 3.3, mainstream the key cross-cutting themes of nutrition, gender, youth and climate; and 3.5, make strategic partnerships for financing, knowledge, advocacy and global influence a cornerstone of IFAD operations. They are also in compliance with the IFAD Rural Finance Policy and the Social, Environmental and Climate Assessment Procedures of 2017. Moreover, IFAD's Sexual Exploitation and Abuse (SEA) Policy will be taken into account during project implementation.

E. Costs, benefits and financing

Project costs

28. Total project costs, including price and physical contingencies, duties and taxes are estimated at US\$49.0 million. Of this amount, US\$21.3 million will be in foreign exchange and around US\$3.7 million corresponds to duties and taxes.
29. The total amount of IFAD climate finance for PRODAPE has been calculated on a preliminary basis as US\$13.4 million, representing 31.2 per cent of IFAD's investment. This amount is drawn from financing for subcomponents 1.2 and 2.1. If a climate event triggers component 0 in the future, the amount of climate finance will increase, likely by a substantial amount.

Table 1
Project costs by component (and subcomponents) and financier
(Thousands of United States dollars)

Components	IFAD Loan		IFAD Grant		Beneficiaries		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
0. Disaster risk reduction and response	-	-	-	-	-	-	-	-	-	-
1. Small-scale aquaculture productivity										
1.1 Agribusiness for input supply	1 598	15.2	6 391	60.9	262	2.5	2 250	21.4	10 501	21.4
1.2 Smallholder aquaculture production capacity development	1 158	13.2	4 630	52.9	2 459	28.1	505	5.8	8 751	17.9
Subtotal	2 755	14.3	11 022	57.2	2 721	14.1	2 754	14.3	19 252	39.3
2. Development of aquaculture business										
2.1 Support to development of aquaparks	218	20.0	872	80.0	-	-	-	-	1 091	2.2
2.2 Market linkages and business partnerships	3 325	19.9	13 300	79.8	-	-	51	0.3	16 676	34.0
2.3 Access to financial services	36	20.0	146	80.0	-	-	-	-	182	0.4
Subtotal	3 579	19.9	14 318	79.8	-	-	51	0.3	17 949	36.6
3. Project management, policy and institutional development										
3.1 Policy and institutional development	158	20.0	632	80.0	-	-	-	-	790	1.6
3.2 Mainstreaming nutrition and addressing social risks	756	17.7	3 025	70.9	168	3.9	315	7.4	4 264	8.7
3.3 Project management and coordination	1 353	20.0	5 410	80.0	-	-	-	-	6 763	13.8
Subtotal	2 267	19.2	9 067	76.7	168	1.4	315	2.7	11 816	24.1
Total project costs	8 602	17.5	34 406	70.2	2 889	5.9	3 121	6.4	49 017	100

Table 2
Project costs by expenditure category and financier
(Thousands of United States dollars)

Categories	IFAD Loan		IFAD Grant		Beneficiaries		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Equipment and materials	278	6.4	1 113	25.6	2 459	56.5	505	11.6	4 355	8.9
2. Works	4 952	20.0	19 810	80.0	-	-	-	-	24 762	50.5
3. Vehicles	53	20.0	213	80.0	-	-	-	-	267	0.5
4. Consultancies	1 076	18.9	4 305	75.6	-	-	315	5.5	5 696	11.6
5. Credit, guarantee funds	210	16.0	839	64.0	262	20.0	-	-	1 311	2.7
6. Training	988	19.3	3 954	77.4	168	3.3	-	-	5 110	10.4
7. Workshop	374	20.0	1 497	80.0	-	-	-	-	1 871	3.8
8. Salaries and allowances	552	10.9	2 206	43.6	-	-	2 300.9	45.5	5 059	10.3
9. Operating costs	118	20.0	470	80.0	-	-	-	-	588	1.2
Total project costs	8 602	17.5	34 406	70.2	2 889	5.9	3 121	6.4	49 017	100.0

Table 3
Project costs by component and year
 (Thousands of United States dollars)

Components	2020		2021		2022		2023		2024		Total
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount
0. Disaster risk reduction and response	-		-		-		-		-		-
1. Small-scale aquaculture productivity											
1.1 Agribusiness for input supply	3 779	36.0	3 680	35.0	1 988	18.9	626	6.0	429	4.1	10 501
2.2 Smallholder aquaculture production capacity development	1 311	15.0	2 152	24.6	2 583	29.5	1 773	20.3	933	10.7	8 751
Subtotal	5 089	26.4	5 831	30.3	4 571	23.7	2 399	12.5	1 362	7.1	19 252
2. Development of aquaculture business											
2.1 Support to development of aquaparks	346	31.7	-	-	359	32.9	-	-	386	35.3	1 091
2.2 Market linkages and business partnerships	1 733	10.4	3 924	23.5	4 777	28.6	3 470	20.8	2 771	16.6	16 676
2.3 Access to financial services	21	11.5	45	24.6	46	25.2	47	25.7	24	13.0	182
Subtotal	2 101	11.7	3 969	22.1	5 182	28.9	3 517	19.6	3 180	17.7	17 949
3. Project management, policy and institutional development											
3.1 Policy and institutional development	291	36.8	148	18.7	165	20.9	89	11.3	97	12.2	790
3.2 Mainstreaming nutrition and addressing social risks	590	13.8	1 405	32.9	656	15.4	1 015	23.8	599	14.1	4 264
3.3 Project management and coordination	2 426	35.9	1 106	16.4	1 046	15.5	1 176	17.4	1 008	14.9	6 763
Subtotal	3 307	28.0	2 658	22.5	1 867	15.8	2 280	19.3	1 704	14.4	11 816
Total project costs	10 497	21.4	12 459	25.4	11 620	23.7	8 196	16.7	6 246	12.7	49 017

Project financing/ cofinancing strategy and plan

30. PRODAPE will be financed by: an IFAD loan on highly concessional terms (US\$8.6 million, 17.5 per cent of total project costs) and an IFAD grant (US\$34.4 million, 70.2 per cent of total project costs) under the 2019-2021 performance-based allocation system cycle. The project will also be financed by contributions from the Government of Mozambique (US\$3.1 million, 6.4 per cent of total project costs) and project beneficiaries (US\$2.9 million, 5.9 per cent of total project costs). The IFAD loan and grant will finance expenses inclusive of taxes.
31. The Government of Mozambique will cover the salaries of its own staff, who will support project implementation on a pro-rata basis, as well as the project coordination unit (PCU) costs.

Disbursement

32. The disbursement plan for the project by year is presented below:

Table 4

Disbursement by semester and government cash flow

(Thousands of United States dollars)

Semester	Financing available			Total	Costs to be financed	Government	Cumulative Cash flow
	IFAD Loan	IFAD Grant	Beneficiaries		Project costs	Cash flow	
	Amount	Amount	Amount				
1	978	3 913	78	4 970	5 248	(278)	(278)
2	978	3 913	78	4 970	5 248	(278)	(557)
3	1 080	4 321	476	5 876	6 229	(353)	(910)
4	1 080	4 321	476	5 876	6 229	(353)	(1 263)
5	1 007	4 027	432	5 465	5 810	(345)	(1 608)
6	1 007	4 027	432	5 465	5 810	(345)	(1 953)
7	663	2 653	446	3 762	4 098	(336)	(2 289)
8	663	2 653	446	3 762	4 098	(336)	(2 625)
9	572	2 290	13	2 875	3 123	(248)	(2 873)
10	572	2 290	13	2 875	3 123	(248)	(3 121)
Total	8 602	34 406	2 889	45 897	49 017	(3 121)	(3 121)

Summary of benefits and economic analysis

33. Project profitability indicators. The overall economic internal rate of return (EIRR) of PRODAPE is estimated at 26 per cent. The economic net present value (ENPV) is MZN 4.4 billion (US\$73.3 million) at a 10 per cent social discount rate. As the ENPV is positive and the EIRR is above the social discount rate, the project is deemed economically viable and acceptable for investment.
34. Benefits. Financial benefits will be in the form of increased productivity among farmers engaging in the aquaculture value chain, as well as increased financial returns for the targeted households. Social benefits will include a reduction in poverty rates in the project areas, with special measures taken to ensure inclusion of disadvantaged groups.
35. The results of the sensitivity analysis show that a reduction in project benefits of up to 30 per cent would not jeopardize its economic viability, as the ENPV remains positive and the IRR is still above the SDR. An increase in project costs of up to 30 per cent would also not seriously imperil the project as the ENPV would remain positive, with an EIRR well above the SDR. However, the sensitivity analysis shows that the project is particularly sensitive to decreases in the selling price of fish and increases in fish feed prices.

Exit strategy and sustainability

36. PRODAPE's exit strategy hinges on capacity-building and engagement of the private sector. All stakeholders will receive capacity-building in various forms. The resulting increased know-how will facilitate continued productivity improvement and business partnership after project closure. In addition, the participatory design process of PRODAPE responds directly to target beneficiaries' concerns and national development policies and strategies. These efforts to create ownership of PRODAPE from the beginning will provide the foundation and necessary commitment for its sustainability.

III. Risks

A. Project risks and mitigation measures

37. The PRODAPE design identified institutional, economic, social and environmental risks and relevant mitigation measures, as outlined in table 5 below:

Table 5

Key PRODAPE risks and mitigation measures

Activity	Risk	Risk Rating	Mitigation
Human resource requirements for extension	Government may not be able to provide funds to recruit additional field agents and acquire logistical resources.	High	Include salaries, living expenses and transport for extension staff in PRODAPE budget.
Aquaculture production and water needs	Expansion of aquaculture may exceed sustainable carrying capacity and represent an increased risk.	Medium to high	Undertake surveys on water demand and availability in target areas and ensure water management measures are implemented, under the supervision of local administrations. Monitor water quality parameters regularly for quality assurance.
Laboratory and quarantine services	No framework for laboratory and quarantine services to guarantee biosecurity for live fish.	Medium	Strengthen the Aquaculture Research Centre in Chókwè.
Social issues not taken into account during implementation	Targeting strategy may be simplified and thus not be inclusive.	High	Produce manuals on social inclusion and social risks and train staff at all levels on these issues.
Payment delays	Delays in processing payments at subnational level as a result of government decentralization, following constitutional amendment in 2018.	High	Centralize large payments through the PCU account until payment systems at the provincial levels are fully functional.
Staff capacity on procurement planning and contract management	Poor procurement planning and monitoring capacity could lead to significant delays in executing procurement actions.	High	Conduct training on IFAD procurement guidelines and Mozambique's Public Procurement Decree N. 5/2016.
Country debt distress levels	Government is not able to meet its financial obligations under the project.	High	Ensure that counterpart financing obligations of the Government are in-kind and stipulated in the financing agreement. Enforce compliance during implementation.

B. Environment and social category

38. As PRODAPE's potential social and environmental impact is considered manageable and/or reversible, it is classified as a category B operation. This classification is confirmed by the project environmental and social management framework.

C. Climate risk classification

39. PRODAPE's climate risk classification is high, requiring a detailed climate risk analysis. Project investments will focus on aquaculture systems sensitive to climate change and will require measures to reduce vulnerability.

D. Debt sustainability

40. Mozambique's public debt continues to be at high distress levels, as per the International Monetary Fund country report of May 2019. It is noted that the authorities are pursuing a strategy to bring this level down to moderate. The public and publicly guaranteed debt, including domestic debt, reached about 110.5 per cent of GDP as at end-2018. The arrears on public and publicly guaranteed external debt stood at about US\$1.2 billion at end-2018. There is a potential exchange rate risk for any imported items, but this is mitigated by the fact that PRODAPE will be able to maintain and transact in the currency in which it receives the loan and grant proceeds – either the United States dollar or the euro.

IV. Implementation

A. Organizational framework

Project management and coordination

41. PRODAPE will establish a PCU in Maputo. Based on the recent experience of the Artisanal Fisheries Promotion Project (PROPESCA), a focal point for PRODAPE will be identified in each target province at the Provincial Directorates of Sea, Inland Waters and Fisheries (DPMAIP) and will report to the provincial director. He/she will be responsible for overall project planning, coordination, implementation and monitoring with provincial and district players and streamlining communications with the Maputo-based PCU.

Financial management, procurement and governance

42. Financial management arrangements will be mainstreamed within the government system, as with the ongoing projects. The financial management systems have potential to provide adequate controls and ensure proper management of project funds and this will be continuously reviewed during implementation. The risk assessment is based on the ongoing projects mainstreamed in the system and also the noted improvements in the country's public financial management assessment, which indicates improvements in budget execution, accounting, internal controls and reporting and external audits. Project planning and budgeting will be aligned to the government calendar, with the objective of having quality annual workplans and budgets (AWP/Bs). Although making use of the government system has so far worked well with the current projects, challenges remain in the provision of reports in IFAD formats. This, together with the foreseen delays in payments at provincial level due to the government decentralization following the proposed constitutional amendment, brings the mitigated financial management risk level to medium.
43. Funding from IFAD will be administered through a separate designated account at the Bank of Mozambique to receive IFAD project funds. PRODAPE will maintain a local currency operating account under the single treasury account for the PCU. At the provincial level, funds will be disbursed to the DPMAIP single treasury account for the project.
44. The project will be the first to be audited by the Office of the Auditor General, after the assessment and discussions during the design process. The audit will be in accordance with the International Standards of Supreme Audit Institutions and will be in compliance with the IFAD requirements on project audits.
45. Procurement. The existing legal framework for public procurement in Mozambique is currently governed by Decree 5/2016, which establishes the principles and procedures to be applied in any procurement by public authorities and institutions governed by public law, under public control or using public funds.
46. Governance. Project governance will be led by the national project steering committee as the governing body of the project. While the enforcement of good governance is the primary responsibility of the Government of Mozambique, all project stakeholders will be made aware that IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in IFAD-financed projects.

B. Planning, monitoring and evaluation, learning, knowledge management and communications

47. The integrated participatory and results-based monitoring and evaluation, learning and knowledge management systems, together with communication plans, will be developed in accordance with government frameworks and IFAD guidelines.
48. The project will establish linkages with the Brazilian aquaculture parks system in the context of South-South and Triangular Cooperation.

Innovation and scaling up

49. Three areas of innovation are envisaged within PRODAPE: (i) a comprehensive targeting and social risk management approach to ensure inclusive outreach to different groups of producers; (ii) innovative business partnerships and concepts for Mozambique's aquaculture sector; and (iii) genetic improvement of indigenous tilapia through selective breeding and establishment of facilities for seed biosafety.
50. The scaling up strategy focuses on taking forward some of the knowledge, good practices, results and technologies from the Small-scale Aquaculture Promotion Project (PROAQUA) and PROPESCA for implementation in PRODAPE's 23 target districts, including building on knowledge from studies conducted under PROAQUA, particularly on feed, seed and economic analysis of alternative models.

C. Implementation plans

Implementation readiness and start-up plans

51. To ensure implementation readiness at start-up, a draft AWP/B, procurement plan and project implementation manual have been prepared as part of the design for PRODAPE. Other measures include: (a) building on the existing structures, mechanisms, lessons and experiences of PROPESCA and PROAQUA; and (b) integrating part of the staff of PROPESCA and PROAQUA into the PCU of PRODAPE, based on satisfactory performance evaluation

Supervision, midterm review and completion plans

52. Supervision. PRODAPE will be jointly supervised by IFAD and the Government.
53. Midterm Review. A joint IFAD-Government midterm review will be undertaken in year three.
54. Completion. At the end of project implementation, a review will be carried out to document the relevance, effectiveness, efficiency, impact, sustainability and potential for scaling up PRODAPE. The findings will inform the design of the next phase of project interventions.

V. Legal instruments and authority

55. A financing agreement between the Republic of Mozambique and IFAD will constitute the legal instrument for extending the proposed financing to the recipient. A copy of the negotiated financing agreement is attached in appendix I.
56. The Republic of Mozambique is empowered under its laws to receive financing from IFAD.
57. I am satisfied that the proposed financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

58. I recommend that the Executive Board approve the proposed financing in terms of the following resolution:

RESOLVED: that the Fund shall provide a loan on highly concessional terms to the Republic of Mozambique in an amount of eight million six hundred thousand United States dollars (US\$8,600,000), and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide a Debt Sustainability Framework grant to the Republic of Mozambique in an amount of thirty-four million four hundred thousand United States dollars (US\$34,400,000), and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Gilbert F. Hougbo
President

Negotiated financing agreement: "Small-Scale Aquaculture Promotion Project"

(Negotiations concluded on 28 August 2019)

Grant No: _____

Loan No: _____

Project name: Small-Scale Aquaculture Promotion Project ("the Project")

The Republic of Mozambique (the "Borrower/Recipient")

and

The International Fund for Agricultural Development (the "Fund" or "IFAD")

(each a "Party" and both of them collectively the "Parties")

Whereas the Borrower/Recipient has requested a grant and a loan from the Fund for the purpose of financing the Project described in Schedule 1 to this Agreement;

Whereas, the Fund has agreed to provide financing for the Project; The Borrower/Recipient has undertaken to provide additional support, financially or in kind that may be needed to the Project;

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, amended as of December 2018, and as may be amended hereafter from time to time (the "General Conditions") are annexed to this Agreement, and all provisions thereof shall apply to this Agreement. 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.

3. The Fund shall provide a Grant and a Loan (the "Financing") to the Borrower/Recipient which the Borrower/Recipient shall use to implement the Project in accordance with the terms and conditions of this Agreement.

Section B

1. A. The amount of the Grant is thirty four million four hundred thousand United States dollars (USD 34 400 000).

B. The amount of the Loan is eight million six hundred thousand United States dollars (USD 8 600 000).

2. The Loan granted on highly concessional terms shall be free of interest but shall bear a fixed service charge as determined by the Fund at the date of approval of the

Financing by the Fund's Executive Board. The rate is fixed for the life of the loan based on the related service charge in force at the time of approval of the Loan. The Loan is repayable semi-annually in the Loan Service Payment Currency. The Financing shall have a maturity period of forty (40) years, including a grace period of ten (10) years starting from the date of approval of the Financing by the Fund's Executive Board.

3. The Loan Service Payment Currency shall be the US dollar.
4. The first day of the applicable Fiscal Year shall be 1 January .
5. Payments of principal and service charge shall be payable on each 1 February and 1 August .
6. There shall be a Designated Account in USD, opened and maintained by the Ministry of Finance ("MoF"), at Bank of Mozambique ("BoM"), for the exclusive use of the Project. The Borrower/Recipient shall inform the Fund of the officials authorized to operate the Designated Account.
7. There shall be an operating account in the form of a Single Treasury Account in local currency for the PCU. The Borrower/Recipient shall inform the Fund of the officials authorized to operate the Designated Account.
8. The Borrower/Recipient shall provide counterpart financing for the Project in the amount of three million one hundred thousand United States Dollars (USD 3 100 000) to finance the salaries of its own staff, who will support the implementation of the Project on a pro-rata basis, as well as the costs of the PCU office.

Section C

1. The Lead Project Agency ("LPA") shall be the Ministry of Sea, Inland Waters and Fisheries ("MIMAIP").
2. The Project Completion Date shall be the sixth anniversary of the date of entry into force of this Agreement.

Section D

The Financing will be administered and the Project supervised by the Fund.

Section E

1. The following are designated as additional grounds for suspension of this Agreement:
 - (a) Key Project Coordination Unit (PCU) staff as described in Schedule 1 section II.A.3 have been appointed, transferred or moved from the PCU without the consent of the Fund;
 - (b) The Programme Implementation Manual (PIM), or any provision thereof, has been waived, suspended, terminated, amended or modified without the consent of the Fund, and the Fund has determined that such waiver, suspension, termination, amendment or modification has had, or is likely to have, a material adverse effect on the Project.

2. The following are designated as additional conditions precedent to withdrawal:
 - (a) The PCU and the National Project Steering Committee (NPSC) shall have been established;
 - (b) The PCU key staff as detailed in schedule 1 section II paragraph A shall have been recruited;
 - (c) The designated account shall have been opened and the names of the authorized signatories shall have been submitted to IFAD;
 - (d) The PIM as described in section II of schedule 1 shall have been prepared in form and substance satisfactory to the Fund;
 - (e) The first Annual Work Plan and Budget (AWPB) shall have received IFAD's non-objection; and
 - (f) An accounting system has been procured and installed to facilitate the preparation of withdrawals applications and the required IFAD's reports.

4. The following is designated as an exception to the General Conditions:
 - (a) As an exception to section 11.01 (a) of the General Conditions, the proceeds of the Financing shall cover taxes and duties under the Project to the extent that compliance with the Fund's policy of requiring economy and efficiency in the use of its financing is ensured. Should the amount of any such taxes being excessive, discriminatory or unreasonable, the Fund may notify the Recipient to reduce the percentage of eligible expenditures to be financed under this Financing Agreement.

5. In accordance with section 13.01 of Article XIII of the General Conditions, this Agreement shall become effective subject to the reception by the Fund of a legal opinion issued by the Attorney General or other legal counsel authorized by the Borrower/Recipient to issue such opinion.

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

For the Borrower/Recipient:

Minister of Finance of the Republic of Mozambique
Ministry of Finance
Parce da Marinha Popular 272
Maputo

For the Fund:

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

This Agreement, [dated _____], has been prepared in the English language in two (2) original copies, one (1) for the Fund and one (1) for the Recipient and shall enter into force on the date of countersignature.

REPUBLIC OF MOZAMBIQUE

[Authorised Representative name]
[Authorised Representative title]

Date: _____

INTERNATIONAL FUND FOR
AGRICULTURAL DEVELOPMENT

Gilbert F. Houngbo
President

Date: _____

Schedule 1

Project Description and Implementation Arrangements

I. Project Description

1. Target Population. The Project shall benefit smallholder producers at the various levels of the aquaculture value chain (youth and women). The Project is expected to benefit approximately to 17,800 households 50% of financial products targeting the value chain will be attributed to women.

2. Project area. The Project will target 23 districts selected in line with criteria agreed upon with IDEPA in seven provinces: Niassa, Cabo Delgado, Nampula, Zambezia, Tete, Manica and Sofala (the "Project Area").

3. Goal. The goal of the Project is to contribute to poverty reduction and enhance food security and nutrition among rural households.

4. Objectives. The objective of the Project is to increase production, consumption and income of rural householdss and other actors in the aquaculture value chain.

5. Components. The Project shall consist of the following components:

5.0 Component 0- Disaster risk reduction and response. This component shall aim at reducing Project and beneficiary vulnerability to future climatic hazards; it constitutes a programmatic window for the integration of preventive and response measures to ensure (i) sufficient investments in climate change resilience and early warning systems are available (ii) adequate resources and on-time response is put in place when such adverse conditions make themselves manifest.

5.1 Component 1: Small-scale aquaculture productivity. This component aims at (i) supporting the establishment and consolidation of local commercial input supply networks of fish feed and fingerlings at competitive and affordable prices; and (ii) promote fish productivity through climate smart technologies and environmentally sustainable production techniques suited to the different agro-ecological zones.

5.1.1 Sub-component 1.1: Agribusiness for input supply. The sub-component will focus on the development of fish seed (fingerlings) production by supporting selected private hatchery operators, inter alia through the following measures (i) construction/rehabilitation of hatcheries and civil works, (ii) technical assistance to strengthen their operational capacity or, (iii) establishment of linkages between fish seed producers and emerging clients. Microfinance institutions will be used to administer the delivery of suitable credit and grants products to private hatchery operators. Matching grants and LoCs shall be used to support producers based on their existing capacity, sound business plans and their ability to supply a given number of farmers in specified areas.

5.1.2 Sub-component 1.2: Develop smallholder aquaculture production capacity. This sub-component aims at promoting a range of sustainable fish production technologies, by supporting the Beneficiaries through matching grants towards capital costs, training, access to inputs and markets in line with their capacity and production potential. The following measures will be considered to support smallholders: (i) organization of beneficiaries in 2 business-oriented groups - aquaparks and clusters- to facilitate joint access to extension and training, inputs

and markets, (ii) access to land and water both for individuals and associations to secure land tenure rights, as necessary, and (iii) technical trainings to farmers on aquaculture practices.

5.2 Component 2: Development of aquaculture business. This component shall aim at (i) supporting the development of aqua parks; (ii) improving practices for aquaculture products to maintain their value in markets and supporting an environment that facilitates business partnerships, especially PPPs; (iii) promoting financial inclusion; and (iv) supporting youth aquapreneurship.

5.2.1 Sub-component 2.1: Support to development of aqua-parks. The development of small aqua-parks, will be used as a vehicle to integrate smallholder farmers in rural communities into the aquaculture value chain. The Project will support this development by implementing the following measures: (i) provision of technical assistance, (ii) identification of sources of financing and the arrangements for equitable PPPs and (iii) provision of enabling and critical key infrastructure (such as warehouse, water canals etc.)

5.2.2 Sub-component 2.2: Develop market linkages and business partnerships. The sub-component aims at developing practices to improve cultured fish handling, collection as well as marketing and distribution based on the results of a market study carried out beforehand to determine the demand for aquaculture produce. Support will be provided to the establishment of business partnerships between small and commercial fish producers in order inter alia to allow smallholder producers to access to relevant aquaculture technologies. A particular attention will be given to the development of youth aqua-preneurs, providing tailored support package to youth, to facilitate their engagement in small businesses in the aquaculture value chain.

5.2.3 Sub-component 2.3: Access to financial services. This sub-component will aim at addressing access to finance constraints across the aquaculture value chain, by facilitating the provision of appropriate, affordable and sustainable financial and business support services. Financial services for beneficiaries will be provided through (i) the ongoing REFP implemented by the National Investment Bank (BNI) in partnership with participating micro-finance institutions, (ii) the development of financial products such as Crowding-In Fund (CIF) or Line of Credit (LoC), and (iii) the development of synergies with other private sector financing models.

5.3 Component 3: Project management, policy and institutional development. This component shall aim at (i) supporting the strengthening of institutions responsible for small-scale aquaculture to fulfil their roles, as described under section II- A below, in project implementation and beyond, and (ii) warranting the provision of support to the development of sector policies and regulatory frameworks and more specifically to strengthen the institutional and technical capacity of sector institutions such as the National Institute for the Development of Fisheries and Aquaculture (IDEPA).

II. Implementation Arrangements

A. Organisation and Management

1. Lead Project Agency (LPA). The Ministry of Sea, Inland waters and Fisheries (MIMAIP) shall be the LPA implementing the Project through the IDEPA. As such the MIMAIP shall ensure the day to day oversight of the Project. The National Institute for

the Development of Fisheries and Aquaculture (IDEPA) shall be the implementing agency.

2. National Project Steering Committee (NPSC).

2.1 Establishment and composition. A NPSC chaired by the Permanent Secretary of the MIMAIP shall be established to serve as the governing body of the Project. The NPSC shall be composed of representatives as listed in the PIM. Steering Committees will also be established at provincial and district levels.

2.2 Responsibilities. The NPSC shall provide strategic guidance towards the achievement of project objectives and contribute to the higher-level sector policy and strategic goals. It will also be responsible for review and approval of AWPBs, and annual reports. At provincial and districts levels the Steering Committees shall focus on strategic operational issues, the review of local AWPBs and overall project progress and effectiveness monitoring.

3. Project Coordination Unit (PCU).

3.1 Establishment and composition. A PCU managed by a Project Coordinator and composed of the following key staff (i) a Financial Manager, (ii) Accountants, a (iii) Procurement Officer, (iv) a Monitoring and Evaluation (M&E) Specialist, (v) a Knowledge Management (KM) and Communications Specialist shall be established. Technical specialists in key areas will be recruited and integrated into the MIMAIP/IDEPA departments. In addition, a Focal Point, directly subordinated to the Provincial Director, will be identified in each target DPMAIP and will be responsible for overall project planning, coordination, implementation and monitoring with provincial and district players.

3.2 Responsibilities. The PCU shall be responsible for core management responsibilities, including inter alia: (i) preparation of the AWPB and submission to the Fund's non-objection; (ii) financial management; (iii) procurement, including contracting of service providers; and (iv) reporting, monitoring, evaluation and knowledge management.

B. Monitoring and evaluation (M&E)

An integrated M&E system as well as a communication action plan will be developed to steer project implementation, support economic decisions and policy making, share knowledge and scale-up good practices. The communication plan will also integrate an innovation tracking system, learning routes, documentation, dissemination and learning.

C. Mid-Term Review (MTR)

A MTR will be conducted during the third year of project implementation, to assess the progress, achievements, constraints and emerging impact and likely sustainability of programme activities and make recommendation and necessary adjustments for the remaining Project period. The MTR will be carried out jointly by the LPA/government and IFAD.

D. Programme implementation Manual (PIM)

1. Preparation. The LPA shall prepare a draft PIM acceptable to the Fund. The PIM shall include among other arrangements: (i) institutional coordination and day-to-day execution of the Project; (ii) Project budgeting, disbursement, financial management, procurement, M&E, reporting and related procedures; (iii) detailed description of implementation arrangements for each Project component; and (iv) such other administrative, financial, technical and organizational arrangements and procedures as shall be required for the Project.

2. Approval and Adoption. The LPA shall forward the draft PIM to the Fund for no objection. The LPA shall adopt the PIM, substantially in the form approved by the Fund, and the LPA shall promptly provide copies thereof to the Fund. The Recipient shall carry out the Project in accordance with the PIM and shall not amend, abrogate, waive or permit to be amended, abrogated, or waived, the aforementioned manual, or any provision thereof, without the prior written consent of the Fund.

Schedule 2

Allocation Table

1. Allocation of Grant and Loan Proceeds. (a) The Table below sets forth the Categories of Eligible Expenditures to be financed by the Grant and the Loan and the allocation of the amounts to each category of the Financing and the percentages of expenditures for items to be financed in each Category:

Category	Grant Allocation (expressed in USD)	Loan Allocation (expressed in USD)	Percentage (net of Government and other contribution)
Equipment, Materials & Vehicles	1 190 000	300 000	100%
Works	17 800 000	4 460 000	100%
Consultancies, Training & workshops	9 460 000	2 190 000	100%
Credit, Guarantee Funds	750 000	190 000	100%
Salaries & Allowances	1 350 000	500 000	100%
Operating Costs	400 000	100 000	100%
Unallocated	3 450 000	860 000	100%
Total	34 400 000	8 600 000	100%

All eligible expenses are inclusive of taxes.

The CIF is a matching grant is for acquiring productive assets with a grantee's equity contribution of approximately 20% of the value of asset. It also involves a loan approval by a participating financial institution amounting to 40% of the asset investment.

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/Recipient to request withdrawals from the Grant and Loan Accounts if the Borrower/Recipient 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:

1. Planning, Monitoring and Evaluation. The Borrower/Recipient shall ensure that (i) a Planning, Monitoring and Evaluation (PM&E) system shall be established within twelve (12) months from the date of entry into force of this Agreement.
2. Gender. The Borrower/Recipient shall focus on gender equality and empowering women.
3. Land tenure security. The Borrower/Recipient shall ensure that the land acquisition process has already been completed and that compensation processes were consistent with international best practice and free prior and informed consent principles.
4. Compliance with the Social Environmental and Climate Assessment Procedures (SECAP). The Borrower/Recipient shall ensure that the Project will be implemented in compliance with IFAD's SECAP.
5. Environment and Social Safeguards. The Borrower/Recipient shall ensure that:
(a) all Project activities are implemented in strict conformity with the Recipient's relevant laws/regulations ; ; (c) proposals for civil works include confirmation that no involuntary land acquisition or resettlement is required under the Project. In the event of unforeseen land acquisition or involuntary resettlement under the Project, the Borrower/Recipient shall immediately inform the Fund and prepare the necessary planning documents;
(d) women and men shall be paid equal remuneration for work of equal value under the Project; (e) recourse to child labour is not made under the Project; (f) the measures included in the Gender Action Plan prepared for the Project are undertaken, and the resources needed for their implementation are made available, in a timely manner; and (g) all necessary and appropriate measures to implement the Gender Action Plan to ensure that women can participate and benefit equitably under the Project are duly taken.
6. Anticorruption Measures. The Borrower/Recipient shall comply with IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations.

Logical framework

Results Hierarchy	Indicators				Means of Verification			Assumptions			
	Name ³	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility				
Outreach	Estimated corresponding total number of households members				Fisheries records, Economic Surveys, Project reports, Baseline and impact studies	Annual	PCU	Economic recovery Political enabling environment			
	Household members	0	50700	88900							
	Corresponding number of households reached				Fisheries records, Economic Surveys, Project reports, Baseline and impact studies	Annual	PCU				
	Non-women-headed households	n/a	n/a	n/a							
	Women-headed households	0	2329	3560							
	Households	0	11645	17800							
Persons receiving services promoted or supported by the project											
	Total number of persons receiving services	0	50700	88900							
Project Goal Contribute to reducing poverty and enhancing food security and nutrition in the project Districts	% increase in annual fish consumption from aquaculture at national level (current national average kgs/capita)				Baseline and impact surveys, HH survey	Year 1, midterm & year 5	PCU	Economic and weather conditions remain favourable			
	% increase										
			15	30							
Development Objective To sustainably enhance the livelihoods of poor households for increased income from growth of the aquaculture value chain and family nutrition	# of HHs with improved asset ownership compared to baseline				Baseline and impact surveys, HH survey	Year 1, midterm & year 5	PCU	Existence of macroeconomics and climacteric conditions; Increased income at HH level from sales leads to investments in productive and domestic assets			
	Households										
		TBD ⁴	11645	17800							
Development Objective To sustainably enhance the livelihoods of poor households for increased income from growth of the aquaculture value chain and family nutrition	% of target HHs reporting increased annual net income (fish producers, processors, input suppliers)				National, statistics HH surveys including studies on poverty and gender survey	Baseline and midterm	PCU and Bureau of Statistics	Existence of macroeconomics and climacteric conditions; Increased income at HH level from sales leads to investments in productive and domestic assets			
	Households										
			25	65							
Development Objective To sustainably enhance the livelihoods of poor households for increased income from growth of the aquaculture value chain and family nutrition	Proportion (%) of people who have adequate and diverse diets ⁵				National statistics, HH surveys, including studies on poverty and gender	Baseline survey and the end of Project	PCU and Bureau of Statistics	Existence of macroeconomics and climacteric conditions; Increased income at HH level from sales leads to investments in productive and domestic assets			
	Persons										
		0	25	50							
Outcome 1. Increased fish production and productivity of smallholder farmers in aquaculture	Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				Economic Surveys, Project reports, impact studies and specific surveys	Semi-annual and annual	Implementing partners and PCU	Favourable conditions for aquaculture farming			
	Households										
			30	75							
	Total number of household members										
		26695	66737								
Output 1.1.1 Quantity of quality of fish seed (fingerlings) production improved	# of aquaculture producers accessing fingerlings required				Project progress reports	Annual	PCU	Package of attractive incentives established			
	producers										
		0	25	80							
	# of aquaculture producers accessing feed required										
Output 1.2.1 Quantity and quality of feed production improved	producers				Project progress reports	Annual	PCU	Package of attractive incentives established			
		0	30	60							
	% change in income								Project progress reports	Annual	PCU/ Implementing partners
	Percentage										
	0	70	146								

³ All indicators related to interventions at sub-national level will be disaggregated by gender and age.

⁴ Indicator to be determined after the baseline scheduled for year 1.

⁵ Refers to women of reproductive age (15-49 years old) who consume at least five out of ten defined food groups.

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name ³	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
aquaculture increased								
Output 1.4.1 Consumer awareness and basic knowledge on nutrition improved	# of persons provided with targeted support to improve their nutrition Total persons	0	50700	88900	Project progress reports; Survey on nutrition	Annual, Midterm and end of Project	PCU	Favourable policy environment; Nutrition interventions implemented in the country
Outcome 2. Improved efficiency of aquaculture production and market system	% of producers reporting increase in value of aquaculture production Producers	0	50	90	Economic Surveys, Project reports, impact studies and specific survey	Semi-annual and annual	Implementing partners and PCU	Economic and weather conditions remain favourable; Favourable macro-economic indicators
Output 2.1.1 Aquaparks established	# of aquaparks established Aquaparks	0			Project progress reports	Annual	PCU/ Implementing partners	Favourable conditions for aquaparks
Output 2.2.1 Market outlets for aquaculture fish operational	Functional retail outlets increase Increase in retail outlets	0	35	75	Action plans	Baseline survey	PCU	Favourable conditions for domestic aquaculture fish farming and marketing
Output 2.2.2 Aqua business linkages established	# of small farmers in business relationship with input suppliers Small farmers	0	8000	12000	Project progress reports	Annual	PCU Implementing partners	Favourable conditions for aquaculture farming
Output 2.3.1 Community-based Groups of savings and credit (PCR) in aquaculture assisted	Active PCR groups identified and assisted to access finance service PCR groups	0	150	450	Supervision Mission reports, Project progress reports	On an annual basis	PCU/BNI	Groups of PCR willing and participate actively in saving and credit
Output 2.3.2 Line of credit (LoC) for aquaculture entrepreneurs established	Aquaculture entrepreneurs accessing targeted LoC (CI/ORMS) Entrepreneurs	0	200	500	Supervision Mission reports, Project progress reports	On an annual basis	PCU/BNI	Aquaculture entrepreneurs willing and attracted by the available LoC
Output 2.4.1 Youth aquapreneurships established	Youths in income generating activities Young	0	300	600	Project progress reports	On an annual basis	PCU Implementing partners	Favourable conditions for youth enterprises
Outcome 3. The sector and project are better managed and strategic objectives are reached	Targeted farmers reporting having access to services from the ministry Farmers increase		20	45	Economic surveys, Project reports, impact studies and specific surveys	Semi-annual and annual	Implementing partners and PCU	Supportive policy and legal framework
Output 3.1.1 Project coordination systems in place and used	Disbursement and fund utilization Disbursement and fund utilization	0	50	100	PCU and project reports	On an annual basis	PCU MIMAIP	Development of aquaculture continues being a priority for the Government
Output 3.2.1 Institutional capacity of MIMAIP strengthened	Persons benefiting from capacity-building activities Persons	0	200	500	PCU and project reports	On an annual basis	PCU MIMAIP	
Output 3.3.1 Sector policy framework strengthened	Aquaculture sector strategies produced (strategic mapping, suitability map) Strategies				PCU and project reports	On an annual basis	PCU MIMAIP	The Government continues considering aquaculture as a priority.