Document: EB 2018/123/R.4
Agenda: 4(a)
Date: 21 March 2018
Distribution: Public
Original: English

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Investing in rural people

Republic of Mozambique

Country strategic opportunities programme 2018-2022

Note to Executive Board representatives

Focal points:

Technical questions:

Louise McDonald
Programme Officer
East and Southern Africa Division
Tel.: +39 06 5459 2497
e-mail: l.mcdonald@ifad.org

Robson Mutandi
Country Director
Tel.: + 258823112151
e-mail: r.mutandi@ifad.org

Dispatch of documentation:

Alessandra Zusi Bergés
Senior Governing Bodies Officer
Governing Bodies
Tel.: +39 06 5459 2092
e-mail: gb@ifad.org

Executive Board — 123rd Session
Rome, 16-17 April 2018

For: **Review**

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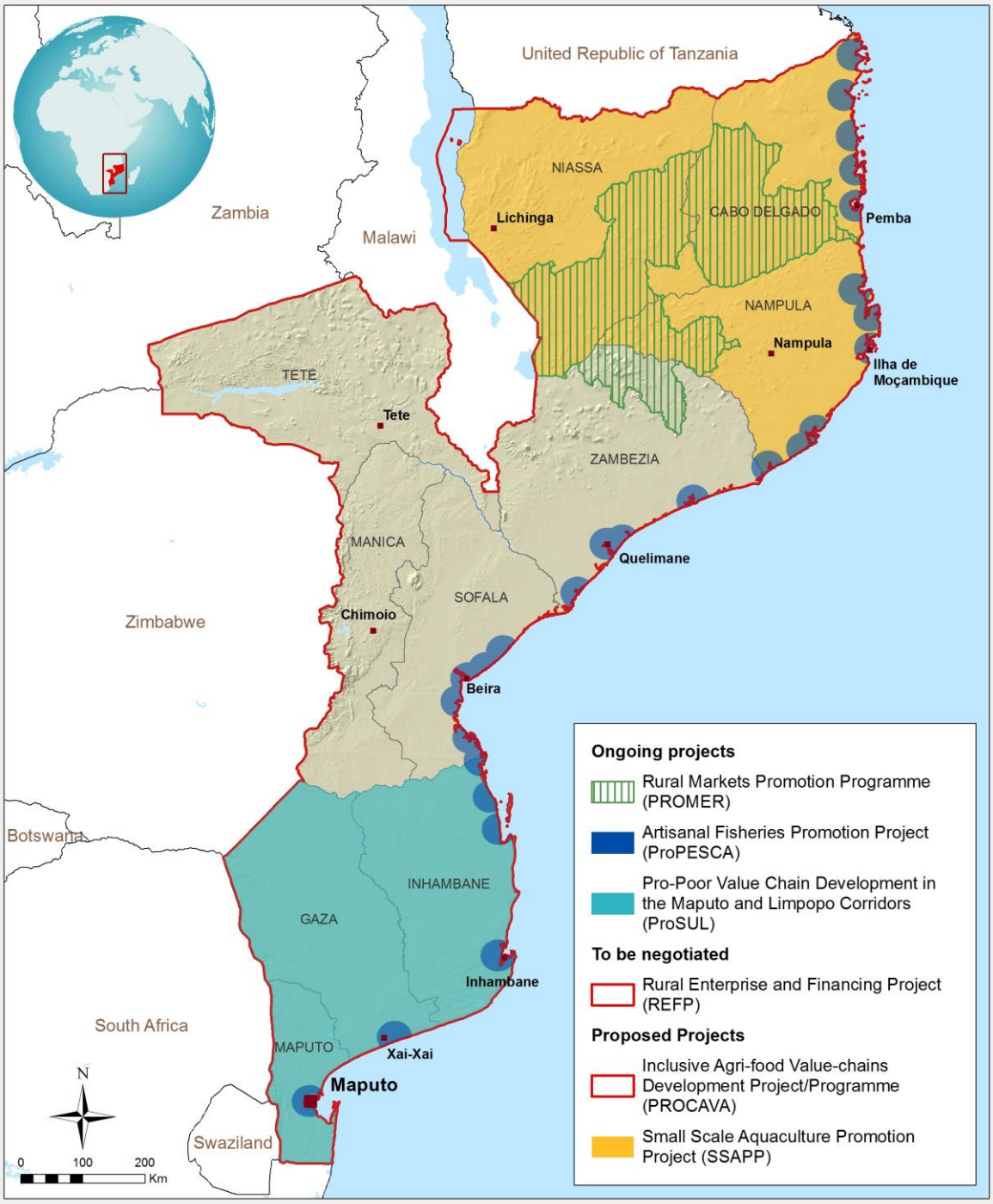
Abbreviations and acronyms

ACP	agreement at completion point
COSOP	country strategic opportunities programme
CSPE	country strategy and programme evaluation
FAO	Food and Agriculture Organization of the United Nations
ICO	IFAD Country Office
M&E	monitoring and evaluation
PBAS	performance-based allocation system
PEDSA	Strategic Plan for Development of the Agricultural Sector
PNISA	National Agricultural Investment Plan
PROAQUA	Projecto de Promoção da Aquacultura de Pequena Escala
PROCAVA	Inclusive Agri-food Value-chains Development Programme
PROMER	Rural Markets Promotion Programme
PRONEA	National Programme for Agricultural Extension
PROPESCA	Artisanal Fisheries Promotion Project
PROSUL	Pro-Poor Value Chain Development Project in the Maputo and Limpopo Corridors
REFP	Rural Enterprise and Financing Programme
SDG	Sustainable Development Goal
SO	strategic objective
SSAPP	Small-scale Aquaculture Promotion Project
SSTC	South-South and Triangular Cooperation
USAID	United States Agency for International Development
WFP	World Food Programme

Mozambique

IFAD-funded operations

COSOP



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Map compiled by IFAD | 29-11-2017

Executive summary

1. The results-based country strategic opportunities programme (COSOP) for Mozambique covers 2018-2022, which encompasses three cycles of the performance-based allocation system (PBAS). Based on current PBAS scores, IFAD funds for the combined three cycles are estimated at US$160 million equivalent.

2. This COSOP builds on: (i) the findings and recommendations of a country programme evaluation conducted in 2016-2017 by the Independent Office of Evaluation of IFAD; (ii) IFAD's self-assessment of country programme performance through supervision and implementation support missions, and annual COSOP reviews; (iii) broad-based consultations with stakeholders and development partners; and (iv) reviews of evidence-based studies. The COSOP is framed by the Government's policies and strategies, as well as those of IFAD.

3. Key challenges and assumptions in the context of IFAD's country strategy in Mozambique include: (i) persistent hunger, malnutrition and poverty concentrated in rural areas; (ii) vulnerability to climate shocks; (iii) weak capacities at the local level; (iv) conducive policies and institutions for inclusive results; and (v) access to financing by rural poor people.

4. The overarching goal of this COSOP is to contribute to inclusive rural transformation that enables rural poor people (particularly women and youth) to overcome poverty, food insecurity and malnutrition through viable and sustainable livelihoods. IFAD will achieve this by working with partners, providing financing and technical support for investment and implementation, and testing innovative models for scaling up by the Government and other partners. This COSOP will also be a vehicle for contributing to the global Sustainable Development Goals (SDGs).

5. Investments through this COSOP will contribute to three interlinked strategic objectives (SOs):

   - SO1: Productive and sustainable water and land use/management[1] by the rural poor, notably women and youth;
   - SO2: Sustainable value chains for priority commodities are remunerative for smallholder producers and create employment for the rural poor; and
   - SO3: Poor rural people are able to use financial services to improve access to income-earning activities, develop their livelihoods and manage risks (personal and environmental), enabling them to withstand shocks.

6. IFAD will focus on the empowerment of marginalized groups including: (i) smallholder farmers; (ii) smallholder fisheries producers; (iii) women and woman-headed households; (iv) marginal communities and vulnerable groups in selected geographic areas; (v) youth; and (vi) people with disabilities (including those injured by landmines during and after the many wars fought in Mozambique).

7. The IFAD Country Office will intensify efforts to strengthen monitoring and evaluation, knowledge management and innovation as reflected in the knowledge management, learning and sharing framework. These efforts will be guided by the theory of change to promote inclusive rural transformation.

[1] This also includes climate resilience and natural resource management.

Republic of Mozambique

Country strategic opportunities programme

I. Country diagnosis

A. Political, economic and rural poverty context

1. **Overview**. Over the last two decades, Mozambique has experienced economic growth of over 7 per cent per year, sustained largely by market-based reforms, massive public investment in infrastructure and large flows of foreign direct investment towards mega-projects in the mining and natural gas sectors.

2. Real GDP per capita grew from US$313 in 2005 to approximately US$529 in 2015. Real GDP in 2015 comprised 53 per cent from the services sector, 25 per cent from agriculture and 22 per cent from industry.[2]

3. **Demographic, human and social development**. The National Statistics Institute has estimated Mozambique's total population at over 28.9 million people,[3] with approximately 70 per cent living in rural areas. The country has a rapidly growing young population: 45 per cent of children were below 14 years in 2017.4

4. Although the Fourth National Poverty Assessment Report 2014/2015 indicated a decline in poverty from 69 percent in 2008/2009 to 55 percent in 2014, it also indicated that the prevalence of poverty in rural areas was 72 percent compared to 18 percent in urban areas (table 1).

Table 1
Poverty incidence: individuals identified as living in poverty (percentage)*

	1996/97	*2002/03*	*2008/09*	2014/15
National	0.86	0.76	0.69	0.55
Urban	0.50	0.41	0.31	0.18
Rural	0.95	0.92	0.86	0.72

* UNU-WIDER project for inclusive growth in Mozambique.

5. Mozambique scored 0.879 on the Gender and development Index, ranking 181st out of 188 countries, with low equality of Human Development Index scores between women and men. While there are differences at the regional level, women experience higher poverty levels overall, have lower levels of education and have limited access to productive and financial resources.

6. Undernutrition is a major concern, with a 43 per cent5 prevalence of child stunting. The highest levels of undernutrition (greater than 50 per cent) have been observed in Cabo Delgado and Nampula Provinces.

7. Mozambique ranks eighth[6] in the world for HIV among its adult population. In 2015, HIV incidence was estimated at 10.5 per cent. The Government has identified the mitigation of HIV and AIDS as a cross-cutting theme of particular importance.

8. **The agricultural sector**. With ten agro-climatic zones, Mozambique has considerable agricultural potential. However, only 14 per cent of its arable land and 2 per cent of its irrigation potential are currently being utilized.[7,8]

[2] World Bank data: http://databank.worldbank.org/data/reports.aspx?source=2&country=MOZ.
[3] National Statistics Institute, 2017, preliminary results (paragraphs 82 to 84, 30 December 2017).
[4] World Bank, Mozambique Economic Update: bit.ly/WB-M-D17.
[5] Global Nutrition Report, 2014: http://www.globalnutritionreport.org/.
[6] United States Central Intelligence Agency World Fact Book, 2016: https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html.
[7] Government of Mozambique, Agenda 2025: http://www.mpd.gov.mz/index.php/documentos/instrumentos-de-gestao-economica-e-social/agenda-2025/83-agenda-2025/file?force_download=1.
[8] National Institute for Statistics, Statistics Yearbook 2012-2014.

9. Smallholder farmers account for 94 per cent of agricultural production, 95 per cent of which occurs on less than 1.5 hectares. Employment in agriculture makes up 75 per cent of total employment9 and 55 per cent of all households engage in agriculture.

10. While all land in Mozambique is state owned, the law recognizes as "existing rights" the occupation of land by local communities or individuals following customary norms and practices. These Rights of Use and Exploitation of Land (Direitos do Uso e Aproveitamento da Terra) are the closest to what is known elsewhere as land titles.

11. The agriculture sector continues to suffer from very low productivity. Major issues for smallholder farmers include access to: (i) water for irrigation and animal and human consumption; (ii) land with secure tenure; (iii) financial services; (iv) improved inputs and extension, veterinary and mechanization services; and (v) infrastructure. There are also risks associated with increasing climatic uncertainty.

12. **The aquaculture sector.** 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. Climatic conditions favor investment in aquaculture10 and the country is home to a wide variety of fish that can potentially be farmed to address nutrition challenges in the country.

13. **Natural resources and climate change.** Approximately 50 per cent of Mozambique's economy utilizes natural resources.11 Agricultural encroachment and unsustainable use of firewood are leading to deforestation and soil degradation, which account for 60 per cent of CO2 emissions in Mozambique. Other threats to the environment include illegal mining, logging, hunting and poaching, and challenges in the marine ecosystem. The country's economic loss due to environmental degradation accounts for 17 per cent of GDP.12

14. Mozambique ranked first on the global Climate Risk Index as being the most affected by climatic events in 2015.

15. **Key development policies and strategies**. There are many policies and strategies relevant to the agricultural and fisheries sectors across a wide range on thematic areas. The Government's Five-Year Plan 2015-2019, which defines the macroeconomic enabling environment and provides for policy stability, is supported by agriculture-specific policies. The Strategic Plan for Development of the Agricultural Sector (PEDSA) focuses on turning agriculture into a modern, commercially driven and inclusive primary sector. PEDSA 2010-2019 cites secure access to sufficient quantities of nutritious food as a fundamental human right. The National Agricultural Investment Plan (PNISA) 2014-2018, an investment instrument aligned with PEDSA, embraces the support of smallholder farmers in growing a wide variety of nutritious foods and supports the research, introduction and broad dissemination of bio-fortified varieties of staple foods.

16. Relevant policies and strategies that have shaped the development of this country strategic opportunities programme (COSOP) and the identification of the two pipeline projects include the following:

    - In 2003, the Government defined its Agenda 2025 – the Nation's Vision and Strategies. In addition, the Five-Year Government Programme 2015-2019 sets goals for social and economic areas in the current governance cycle.

[9] World Bank, World Development Indicators, extracted July 2017.
[10] Report of Potential Areas for Marine Aquaculture, 2011.
[11] Ministry for Coordination of Environmental Affairs and Mozambique Poverty and Environment Initiative, Environmental Economic Analysis of Natural Resource Management, 2012.
[12] 2012 Public Environmental Expenditure Review.

- PEDSA 2011-2020 aims to "contribute to the food security and incomes of agricultural producers, through a competitive and sustainable approach that ensures social and gender equity".[13]
- PNISA 2014-2018 highlights support to smallholders for cultivating a wide variety of nutritious foods and bio-fortified staple food varieties. The Operational Plan for the Agriculture Sector Development is premised on the development of 15 strategic value chains focused in five agriculture development corridors.
- In 2016, the Government prepared the National Plan of Aquaculture and developed the Aquaculture Development Action Plan. It has also established the Aquaculture Research Center (CEPAQ) as a platform for the establishment of an aquaculture industry in Mozambique. IFAD was involved through its two projects, the Projecto de Promoção da Aquacultura de Pequena Escala (PROAQUA) and the Artisanal Fisheries Promotion Project (PROPESCA), in developing and piloting these plans with the Government.
- The IFAD Country Office (ICO) has signed the current United Nations Development Assistance Framework and contributes to monitoring IFAD's contributions to the SDGs through periodic reports to the United Nations Resident Coordinator's office.

B. Main country, sector and programme risks

17. The key potential risks and risk management strategy for IFAD's country programme 2018–2022 are summarized in table 2 below.

[13] PEDSA not only contributes to the national policy framework; it is also the implementation plan for the Comprehensive Africa Agriculture Development Programme and the Southern Africa Development Community 2013 Regional Agricultural Policy.

Table 2
Key risks identified

Risk	*Risk level*	*Risk management strategy*
Macro instability	High	• Regularly review counterpart financing to ensure timely receipt. • Engage in policy dialogue with the Government to safeguard pro-poor rural programmes.
Weak governance	High	• Support the National Audit Office with assistance from the Financial Management Services Division. • Public Expenditure and Financial Accountability – Sistema de Administração Financeira do Estado – electrónico • WIFAD will work with partners, including the World Bank, to assist the Government.
Policy and institutional capacity	Medium	• Strengthen public, private and civil institutions at all levels, especially the local level. • Increase efficiency and effectiveness with results-based contracts. • Increased focus on policy engagement. • Strengthen government capacity for a pro-poor regulatory and policy environment using project resources.
Environmental degradation	Medium	• Pilot the tracking of budget and expenditures for environmental costs and benefits. • Build capacity for climate resilience and natural resource management. • Design activities with – and for – local communities.
Climate risks	High	• Mainstream adaptation measures such as climate-smart agriculture and resilient infrastructure throughout the portfolio. • Build capacity within the Ministry of Agriculture.
Lack of inclusive rural development processes	Low	• Specific targeting strategies for various target groups will be used, including the active engagement and targeting of women (50 per cent) and youth (30 per cent). • Utilize participatory processes from design to evaluation in order to ensure inclusion.
Commercial financial service providers restraining financial inclusion	High	• Engage with the Government, the central bank and other stakeholders to enforce implementation of the Mozambican Financial Sector Development Strategy through an enabling regulatory and institutional framework that includes IFAD's target group.
Remoteness of target areas	Medium	• Work with the Government to deepen local capacity. • Seek partnerships with the private sector and NGOs.
Land tenure risks	Medium	• Continue with participatory land registration and certification process through projects.

II. Lessons from IFAD's experience in the country

A. Past results, impact and performance

18. IFAD started operations in Mozambique in 1982. Its work has been informed by two evaluations by the Independent Office of Evaluation of IFAD – a country programme evaluation in 2009 and a country strategy and programme evaluation (CSPE) in 2016.

19. During the evaluation period (2009-2016), IFAD provided six loans with a total value of US$237 million. This represented a significant increase in IFAD's commitment from the 17 years prior to 2009, when the total loan value amounted to US$127 million. The current project portfolio comprises three projects: the Rural Markets Promotion Programme (PROMER); the Pro-Poor Value Chain Development Project in the Maputo and Limpopo Corridors (PROSUL); and PROPESCA. A fourth – the Rural Enterprise and Financing Programme (REFP) – is scheduled for approval in 2018.

20. The CSPE found the portfolio to be well aligned with government policies and strategies on value chain development, although it questioned the poverty focus. It concluded that the portfolio had contributed to the COSOP's goal of improving small producers' knowledge and access to new technologies. All projects contributed significantly to institutional development and farmers' organizations. Strong progress was reported on land tenure.

21. The November 2017 COSOP Completion Review found that most projects have made good progress against outreach targets. At the end 2017, all projects had conducted outreach (except the PRONEA Support Project)[14] with 149,429 farmers against a target of 185,000 farmers and fishers. The Rural Finance Support Programme (now completed) and PROMER both exceeded their outreach targets. PROSUL is making good progress with nearly 74 per cent of planned coverage at the midterm review.

B. Lessons learned

22. **Programme design and implementation**. The CSPE reported low efficiency as a significant weakness, which caused delays. Areas highlighted for attention in the COSOP include: (i) more participatory project design and implementation; (ii) harmonization of other donors' contributions with IFAD procedures for disbursement and financial execution;[15] (iii) improved efficiency by government organizations in establishing project management units; (iv) the results focus of service providers; and (v) recognition of cultural differences across regions at the design phase and tailoring of budgets; and (vi) resolution of key bottlenecks, including government counterpart funding.

23. **Knowledge management/management information systems**. As noted by the CPSE,[16] a comprehensive and transparent management information system is a critical tool to ensure project ownership by project staff and service providers, and support performance-based management, monitoring and evaluation (M&E), and knowledge management. This will be pursued through the COSOP.

24. **Selective and limited recruitment of service providers.** The new COSOP proposes that in the future, service providers should be contracted on a performance basis. This will require building staff capacity to define and manage results-based contracting, ensuring that service providers have no vested interest in areas they work. This will in turn ensure greater sustainability and efficiency, and reduce the costs of implementation.

25. **Natural resource management**.[17] The CSPE and country experience through 2017 showed that a focus on natural resource management and climate-smart infrastructure had positive impacts. This COSOP has made access, management and sustainability of natural resources a high priority. The COSOP also presents an opportunity to support the Ministry of the Economy and Finance, and the Poverty and Environment Initiative in piloting mechanisms for tracking natural resource management expenditures. Lessons learned from two pilots on aquaculture through PROAQUA and PROESCA will be relevant to the design of a new and larger aquaculture project in collaboration with partners such as the World Bank, Islamic Development Bank and Norwegian Government.

26. **Sustainability.** This COSOP will focus on promoting integration across projects to increase sustainability. Once operational, the REFP will provide access to financing and credit for all projects in the portfolio. In addition, the two new investments in

[14] The PRONEA Support Project, which supports the government's National Programme for Agricultural Extension (PRONEA), has reached 182,217 out of a targeted 200,000 people. This achievement is likely attributable to national extension services in the target districts and not necessarily to the project.
[15] Recommendation 4: Enhance the efficiency of financial execution, agreement at completion point (ACP).
[16] Recommendation 6: Dedicate more attention and resources to knowledge management and policy dialogue, ACP. ACP Recommendation 5: Develop principles for the reliance on Service Providers in project implementation.
[17] Recommendation 2: IFAD-supported projects in Mozambique should include among their principles, full attention to sustainable natural resources management and to strengthening climate-change resilience of the ACP.

the pipeline will be linked with REFP's Graduation Programme to compliment empowerment activities.

27. A longer-term strategic approach to programmatic planning.18 The CSPE recommended that future planning and programming for IFAD's engagement in Mozambique through the COSOP take a longer-term programmatic approach, with projects and programmes focused on multiple phase investment lasting up to 15 years. This COSOP endorses that recommendation.

C. IFAD's comparative advantage at the country level

28. IFAD is considered a reliable and supportive partner of the Government, which has valued the establishment of an ICO with a resident Country Director. The Government has recognized the Country Director's contribution to improved project management and IFAD's engagement in national policy processes. IFAD's timely supervision and implementation support missions, and regular COSOP annual reviews have enabled project coordinators to share experiences and good practices among projects. IFAD has collaborated closely with the Food and Agriculture Organization of the United Nations (FAO) and World Food Programme (WFP) on nutrition themes that are relevant for the country.

29. Another comparative advantage of IFAD is its vast experience in artisanal fisheries, market development and rural finance. Through this experience it has built important institutional partnerships, which have enabled it to play an active policy role in the country. It has piloted various value-chain approaches and recognized the need to ensure inclusivity. These experiences have made it possible to identify the successes needed for scaling up and to understand the challenges posed by expanding into new geographical areas. The country programme will draw on IFAD's lessons in partnership, contracting and public-private-producer partnerships.

30. Critical for inclusive rural transformation, IFAD is recognized as being flexible and willing to go where others do not – to poor, remote communities that have been previously left out of development initiatives.

III. Strategic goal and objectives

31. The development goal of this COSOP for 2018–2022 is: Contribute to inclusive rural transformation that enables the rural poor (particularly women and youth) to overcome poverty, food insecurity and malnutrition.

32. Its strategic objectives (SOs) are as follows:

- **SO1: Productive and sustainable water and land use/management**[19] **by the rural poor, notably women and youth.** IFAD will support its target groups, with a gender and youth focus, to access water, secure land and sustainably manage natural resources so they can improve their food security (either through the production or purchase of nutritious foods), and invest more time and money in their land as a livelihood strategy.
- **SO2: Sustainable value chains for priority commodities are remunerative for smallholder producers and create employment for the rural poor.** IFAD will finance investments in productive climate-resilient rural infrastructure, support enterprise development and employment creation, and promote partnerships along value chains, enabling all target groups to improve their livelihoods and increase their incomes.
- **SO3: Poor rural people are able to use financial services to improve access to income-earning activities, develop their livelihoods and manage risks (personal and environmental),** enabling them to withstand

[18] Recommendation 3: IFAD's support to the rural finance sector should be conceptualized within a long-term commitment horizon and based on lessons learned.
[19] This includes climate resilience and natural resource management.

shocks. IFAD's investment would enable financial service providers to offer affordable, responsible and accessible financial solutions for poor rural people that are sustainable and at scale. An infrastructure that enables ubiquitous, efficient, open and safe financial markets will be in place and the policy and regulatory framework for financial inclusion will be enforced.

33. **Linkage to SDGs**. Through this COSOP, IFAD will contribute to achieving SDG1 (no poverty), SDG2 (zero hunger), SDG5 (gender equality), SDG8 (decent work and economic growth), and SDG13 (climate action). The country programme is fully embedded in-country priorities and is aligned with the IFAD Strategic Framework 2016-2025 across all three SOs.

A. Lending and non-lending activities

34. **Lending activities.** Achievement of the SOs will be realized through the ongoing portfolio and two planned investments, the: (i) Small-Scale Aquaculture Promotion Project (SSAPP); and (ii) Inclusive Agri-food Value-chains Development Programme (PROCAVA) (see concept notes in appendix VII), as well engagement in non-lending activities. The proposed investments will scale up successes from PROAQUA, PROPESCA, PROMER, the PRONEA Support Project and PROSUL. Each of the ongoing and planned investments will contribute to the three SOs as noted in table 3 below.

Table 3
Key contributions of operations to the SOs

Investments	***Government priorities***	***COSOP SOs***			***IFAD SOs***		
Ongoing		**SO1**	**SO2**	**SO3**	**SO1**	**SO2**	**SO3**
PROPESCA	✓	✓	✓		✓		✓
PROSUL	✓	✓	✓		✓		✓
PROMER	✓	✓	✓		✓	✓	
REFP (to be negotiated and approved)	✓		✓	✓	✓	✓	
Proposed new investments							
SSAPP	✓	✓	✓		✓		✓
PROCAVA	✓	✓	✓		✓	✓	✓
Non-Lending	✓	✓	✓	✓	✓	✓	✓

35. **Non-lending activities**. Non-lending activities to support the achievement of the SOs will include: (i) the ICO's continued engagement in existing policy forums; (ii) knowledge exchange within the context of South-South and Triangular Cooperation (SSTC); (iii) generation and documentation of lessons and knowledge, which will inform policy processes; and (iv) identification of innovations.

36. A regional grant for appropriate green technologies to facilitate development of inclusive value chains for perishable crops and animal products in rural East and Southern Africa is being designed to support both SSAPP and PROCAVA.

IV. Sustainable results

A. Targeting and gender

37. **Geographic targeting.** The COSOP is national in scope and will support investments that are inclusive and focused on poor and vulnerable people in rural areas.

38. Criteria for identifying project areas will integrate different dimensions noted in the targeting, gender and social inclusion strategy. Investments will reach remote and poor areas in all regions, and attention will be paid to reaching areas with high stunting prevalence.

39. **Target group.** The direct target group for the COSOP will comprise poor, vulnerable and disadvantaged rural households involved in agriculture, fisheries and household enterprises. [20] This group will be principally made up of: (i) smallholder farmers (subsistence and semi-subsistence); (ii) smallholder fishermen and women; (iii) microentrepreneurs; (iv) emerging farmers (when poor smallholders can also benefit); and (v) farmer and rural people's organizations. Attention will be given to men, women, women-headed households and youth. Particular consideration will be given to those living below the national poverty line, and quotas will ensure the participation of women (50 per cent) and young women and men (30 per cent). Project teams will work with partners to ensure that disadvantaged individuals – including those affected by HIV/AIDS, people with disabilities and the elderly – have access to support for developing sustainable livelihoods. Participatory methods will also be employed to involve communities in the selection of beneficiaries.

40. **Gender equity and youth.** In order to scale up the results achieved thus far through PROMER, PROSUL and PROAQUA, the household methodologies approach will be applied across the portfolio as a basis for transforming gender relations. The Women Empowerment in Agriculture Index will be used to assess results achieved on gender and social inclusion.

41. **Local institutions.** Strengthening the capacity of poor rural people's organizations will be critical for sustainability. The approach will focus on good governance, equitable participation, social accountability and transparency. Local institutions will include farmers' organisations, water users' associations, savings and credit groups, and local-level public service providers.

B. Scaling up

42. IFAD will draw on existing innovations and those piloted during the COSOP period. The Government has requested that the proposed new investments integrate successes from the pilots and innovations tested during implementation that have proven successful. Focus areas will include: scaling up successful pilots in aquaculture; value chain development along development corridors; public-private-producer partnerships for technical assistance in production and market access; reducing post-harvest losses; and increasing climate-resilient infrastructure. This will be complemented through grants and captured in the knowledge management process so that investments generate knowledge and inform policies.

C. Policy engagement

43. The policy agenda will be linked to the SOs. It will be expected to focus on: (i) promoting sustainable use and management of natural resources for agriculture and fisheries development; (ii) target groups' access to improved technologies (including water and land) and services (including finance); (iii) nutrition and stunting; and (iv) engaging young people in agriculture and related enterprises.

44. IFAD's approach to policy engagement will be driven by investment projects and complemented by grant funding, lessons from knowledge activities and SSTC.

D. Natural resources and climate change

45. The COSOP will aim to improve environmental sustainability and climate change adaptation and resilience through all its interventions. Environmental impacts will be managed by ensuring that: (i) all activities support enhanced environmental sustainability; (ii) any potential negative impacts are addressed in project design and implementation; and (iii) national and IFAD strategies and regulations inform all activities.

[20] As per ACP Recommendation 1: Focus on rural poor and on more vulnerable groups, including women, youth and people living with HIV.

46. The preliminary environmental and social classification of the proposed investments is A; however the final determination will be based on further assessments and elaboration of specific risks during project design. Environment and social management plans will be prepared when necessary to comply with IFAD's environment and climate policies, and the Government's legal requirements.

47. **Climate risk categorization.** The COSOP's climate risk classification is high, given that Mozambique is highly vulnerable to extreme weather events and climate change. Thus, in-depth climate risk and vulnerability assessments will be conducted at the design stage of all proposed value chain and mitigation measures, and embedded in design reports. In line with Mozambique's nationally determined contribution and existing strategies and programmes, the COSOP proposes investments in climate-change mitigation as well as adaptation (see appendix IV for details).

E. Nutrition-sensitive agriculture and rural transformation

48. In line with government and United Nations priorities on food security and nutrition, this COSOP will prioritize support through key interventions in relation to SOs1 and 2: (i) promoting good nutrition and resilient livelihoods through improved production, aquaculture, artisanal fisheries development and access to diversified foods and clean water; (ii) community-based grassroots nutrition education; (iii) supporting good governance and institutional strengthening for improved policies and programmes on nutrition-sensitive agriculture and rural development; and (iv) using approaches such as household methodologies to increase women's voice in decision-making.

V. Successful delivery

A. Financing framework

49. The COSOP covers the performance-based allocation system (PBAS) cycle for the five-year period 2018-2022 (the Tenth, Eleventh and Twelfth Replenishments of IFAD's Resources), as shown in table 4. The figures for future allocations are indicative only.

Table 4
Indicative PBAS financing for the COSOP period 2018-2022

2018	*2019*	*2020*	*2021*	*2022*
0*****	11 540 336	12 355 189	12 787 308	13 031 067

* All funds from IFAD10 have been allocated (REFP, 2018)

50. As per the IFAD11 commitment, cofinancing will be an important aspect of the Mozambique country programme to ensure that it reaches the targets of 8 per cent for national cofinancing and 6 per cent for international cofinancing, with the Green Climate Fund and Global Environment Facility as priority cofunding sources.

Table 5
Relationship between performance indicators and country score

Financing scenario	portfolio-at-risk rating (+/- 1)	Rural sector performance score (+/- 0.3)	***Percentage change in PBAS country score from base scenario***
Base	4	4.6	0

51. The ICO will play a key role in managing and delivering on the COSOP. It will actively support the implementation of projects and directly manage the non-lending activities critical for successful implementation – particularly policy engagement, partnership-building and knowledge management. Other non-lending

activities will focus on developing mechanisms to engage youth. To achieve this, the ICO will be strengthened with additional national capacity to lead and support the development and management of the portfolio, with continued support from the Southern Africa Hub.

B. Monitoring and evaluation

52. Progress towards the development goal and SOs will be assessed relative to the COSOP results management framework and the theory of change. All progress will be linked to the Five-Year Government Programme 2015-2019, PEDSA and its key priorities and strategies. These will be revised when the new five-year plan 2020–2025 is presented. All projects will report on the results framework indicators. The ICO will collect data and present it at country programme management team meetings, which will provide a summary of results for analysis, dialogue and planning.

53. Annual COSOP results reviews and country programme management team processes will assess progress, identify lessons and make evidence-based recommendations for improving performance. A COSOP results review to confirm the continued relevance and validity of the SOs will be undertaken in 2019/2020, when a new version of PEDSA becomes available. A COSOP completion review will be undertaken towards the end of the COSOP period in 2022.

C. Knowledge management

54. The aim of knowledge management is to help Mozambique build a credible knowledge base of practical and actionable know-how. The detailed knowledge management framework can be found in appendix VII.

55. The ICO, in close collaboration with project teams, the Government, local institutions, communities and other partners, will lead a strategic and integrated approach to knowledge management that supports achievement of the COSOP SOs by:

    (i) Promoting dynamic learning, sharing and adaptation for more efficient and effective implementation, and improved project and programme performance;

    (ii) Supporting analysis to inform policies and public expenditures; and

    (iii) Strengthening IFAD's role and reputation as a source of knowledge and expertise.

56. This COSOP assumes that M&E, knowledge management, and learning and sharing will form the foundation of learning for change and thus provide a framework for the theory of change that underpins the country programme.

D. Partnerships

57. In light of the focus on IFAD decentralization, strategic alliances will become even more important, both for Mozambique and IFAD. Alliances will include the Technical Secretariat for Food Security and Nutrition, European Union, Rome-based agencies and Ministry of Health on nutrition and stunting issues. For rural finance, value-chain development, water and fisheries, partners will include the African Development Bank, World Bank, OPEC Fund, United States Agency for International Development (USAID), Islamic Development Bank, and the governments of Brazil, China, Finland, India, Norway and Spain. Where appropriate, SSTC partnerships will be investigated, including with bilateral partners and the private sector.

E. Innovations

58. Potential innovations will be explored through participatory project planning and implementation, and reviewed in progress reports, supervision missions and COSOP annual reviews.

59. The piloting of innovative market-related infrastructure using solar energy for cold storage and ice production has been proposed, especially for the fisheries sector, horticulture and meat industries.

F. South-South and Triangular Cooperation

60. The Government expects to continue collaboration with IFAD in all aspects of SSTC. Sectors identified for potential cooperation – related to investments, policy dialogue, knowledge management and implementation – include: (i) rural water, with SSTC aimed at ensuring access to and treatment of water in rural areas for consumption and economic activities; (ii) rural technology, with initiatives aimed at training local governance bodies in land access and tenure issues, natural resource management and resilience to climatic events; (iii) rural energy; (iv) rural roads, where SSTC knowledge could improve district-level logistics through the construction, rehabilitation and maintenance of climate-resilient road networks; (v) rural finance; and (vi) coastal smallholder fishery and inland aquaculture practices. Potential partners include Argentina, Brazil, China, India, Indonesia, the Philippines, Thailand and Viet Nam.

COSOP consultation process

First discussions with Government on the next COSOP started with the Government and partners during the finalisation of the CSPE and the Agreement at Completion Point. The first mission for developing the new RB-COSOP for Mozambique took place in April 2017. Representatives from SKD also joined the mission. The team visited field activities and also held bilateral meetings with 25 key stakeholders wishing to engage with IFAD also on opportunities for South-South and Triangular Cooperation (SSTC).

Consultations continued In-country and these were followed by a workshop for a wider audience in early July 2017 reflect on conclusions of the CPSE process and also to link this with the development of the new COSOP. The workshop was attended by some 60 participants including Government, implementers, co-financiers, partners, UN agencies, the RBAs and the broader donor community.

The Government, (Ministry of Agriculture and Food Security and Seas, Inland Waters and Fisheries respectively) and the ICO Team have prepared two Concept Notes for the next investments These Concept Notes have been shared with the assigned Lead Advisers for those projects (Concept Notes can be found in Appendix VII of this report).

To draft the strategies (appended as Annexes to this report) a range of experts participated in field visits and consultations were undertaken with Ministries, project staff, farmer associations, District Agricultural Officers, and project / potential beneficiaries. These consultations focused on the current challenges and major constraints faced in achieving the goals of the existing national agricultural strategies. Discussions were also led on the methods of monitoring and evaluating results and impact, the availability of data on progress achieved, and the current needs in terms of support on the implementation of sectoral strategies for agriculture/fisheries.

The consultations and discussions have led to an in depth understanding that the COSOP developed should focuses on transformational results, whereby smallholder farmers, agro pastoralists, pastoralists and micro, small and medium enterprises are endowed with an enabling combination of the critical assets that they require to enhance their productivity and resilience. These assets include water, land, natural resources, technology, finance, institutional capacity, and access to markets. The same is true for social and gender requirements.

Particular attention will be paid to the strengthening of local institutions and their partnerships with the private sector on the implementation of sectoral strategies for agriculture, while building the capacity at the individual, communal, and institutional level.

Agreement at completion point

Republic of Mozambique
Country Strategy and Programme Evaluation
Agreement at Completion Point

A. Introduction

1. The IFAD Independent Office of Evaluation (IOE) carried out a Country Strategy and Programme Evaluation (CSPE) in Mozambique in 2016. This is the second CPE conducted by IOE in Mozambique since the Fund started its operations in the country in 1982. The previous CPE was completed in 2009 and its findings served as an input to the preparation of the 2011 COSOP.

2. The current evaluation had two main objectives: (i) assess the results and performance of the IFAD-financed strategy and programme; and (ii) generate findings and recommendations for the future partnership between IFAD and Mozambique for enhanced development effectiveness and rural poverty eradication; and iii) to provide inputs for the preparation of the future Strategic Opportunities Paper (COSOP) for Mozambique to be prepared by IFAD and the Government in 2017.

3. The Agreement at Completion Point (ACP) reflects the understanding between the Government of Mozambique and IFAD Management of the main conclusions and recommendations of the CSPE of Mozambique. In particular, it includes a summary of the main results of the evaluation in Section B, while the ACP is in Section C. The ACP is a reflection of the commitment of the Government and IFAD to adopt and implement the recommendations of the CSPE within specific deadlines.

4. The follow-up to the implementation of the agreed recommendations will be carried out through the President's Report on the Status of Implementation of the Evaluation Recommendations and the Management Actions, which is presented to the Executive Board of IFAD by the Fund Management on an annual basis.

5. The ACP shall be signed by the Government of Mozambique (represented by the Minister of Economy and Finance) and IFAD Management (represented by the Associate Vice-President of the Program Management Department). The role of the IOE is to facilitate the finalization the final ACP. The ACP will be presented to the Executive Board of IFAD as an annex to the new COSOP for Mozambique and will be included in the final report of the Mozambique CSPE.

B. Main evaluation findings

6. IFAD maintains a long-standing partnership with Mozambique in agriculture and rural development. Overall, the programme was relevant to the needs of the country and had a reasonable level of internal coherence. The alignment of the projects with national policies and strategies was good and government ownership was strong, including full integration of three Project Management Units in the governmental organizations responsible for project execution.

7. The COSOP, partly endorsing the approach in the on-going projects and partly stretching it further away from IFAD's traditional beneficiaries, identified the target population on the economically active poor, who already had the potential to expand and commercialize their activities and who would receive support to enhance access to inputs, markets and credit, and be facilitated in their engagement with the private sector. This led projects to focus on producers who already had access to better factors of production and who often were already members of associations and groups, in districts that had a potential for surplus production and marketing, and on value-chains that ended up transferring most of the added-value, to outside the rural communities.

8. This meant that the bulk of the rural producers in the same districts of intervention who were not so advanced were either left out from projects' activities or were only marginally involved through the enhanced out-reach capacity of the National Extension System (NAESS). Some of the value-chains proposed missed the potential for stronger value addition at the local level for more producers; and led to producers selling to traders who operated under almost monopolistic conditions.

9. Further, despite the dire statistics on HIV and AIDS, no efforts were made to integrate People Living with HIV in the value-chains, ASCAs or even in the capacity development efforts on nutrition, functional literacy or any other topic, in any of the loans.

10. Main results achieved by the programmes in Mozambique outlined in the evaluation include: (i) extensive capacity development of governmental staff and producers, across a broad range of topics, such as technology transfer in agriculture and fisheries, functional and financial literacy and management and business development -this appeared to be a long-term fruitful investment that will contribute to the overall national capacity development; (ii) improvements in the production and productivity of maize and of other crops, mostly horticulture, were visible for the beneficiaries of IFAD supported interventions, thanks to the stronger operational capacity of the NAES, the direct links created between research and extension and to innovative phyto-sanitary practices and methods made available; (iii) nutritional education components integrated in the development of value chains and in the curriculum of the National Extension System; (iv) improvements in access to micro-credit for household assets and petty-trade through Savings and Credit Associations; (v) rehabilitated rural roads Rural roads benefitted a large number of people in the areas covered by the programme.

11. On the other hand, there have been limited results in the development of rural finance. At the time of the CSPE, exception made for the highly successful and sustainable ASCAs, very little tangible progress had been made in improving access to credit for small-scale rural producers in agriculture and fisheries. This gap was undermining the effectiveness of much of the efforts made by the projects in capacity development, technology transfer, improving access to markets, while projects were spending precious time resources in finding their own way forward in the highly complex sector of micro-finance.

12. Efficiency was assessed as moderately satisfactory. Delays in project financial execution and slow implementation were recognized by all stakeholders as a main weakness; efficiency was low across the whole portfolio, exception made for PROMER. Delays were due to a variety of causes including harmonization efforts with national financial implementation procedures and platforms, delays in the processes of contracting the teams of the projects and the consultants and inefficiencies in the use model of the Service Providers.

13. All projects, exception made for ProPesca, largely relied on the recruitment of Service Providers, as envisaged in the 2011 COSOP. There is no doubt that Service Providers with the required experience and knowledge had to be contracted to support the implementation of highly complex projects. However, the experience gained by IFAD across the country portfolio in dealing with Service Providers calls for a careful re-thinking of this implementation model. Future IFAD-supported initiatives should be able to benefit from the added value that competent and experienced Service Providers can bring, without incurring in over-costly and inefficient implementation mechanisms.

14. Women are taking part in IFAD projects, such as members of producer associations and Savings and Credit Groups, but activities have little positive impact on women's empowerment and gender equality at community and family level.

15. The national resources management and environmental dimension of the portfolio was found to be weak overall. This partly contributed to undermine potential positive impacts and sustainability of the projects with respect to food security and production, considering the high dependency of producers' livelihoods, including the economically active poor, on natural resources

16. Efforts made by the IFAD Country Office (ICO) and the recently created IFAD Sub-Programme Coordination Unit (SPCU) to improve results from knowledge management work were visible, but must be strengthened and expanded with more financial and human resources. There are opportunities to strengthen knowledge management, both within the country programme, and also bringing IFAD's knowledge and experience from other countries to Mozambique.

17. In terms of policy dialogue IFAD has contributed to prepare national standards for phytosanitary control monitoring. There is ample potential for both ICO and IFAD to better engage in policy dialogue sharing lessons and experience gained in the country, both directly with the Government and through platforms with other partners.

18. IFAD has developed solid and successful partnerships with the Government and benefits from deeply-rooted respect and trust. IFAD is also credible with several development partners, as proven by the size of the financial resources leveraged for co-financing. A solid rapport has been established with FAO and WFP in the context of the implementation of the EU-funded MDG1c programme.

C. Recommendations

19. **Recommendation 1: Focus on rural poor and on more vulnerable groups, including women, youth and people living with HIV**. A bottom-up approach to reducing food insecurity, malnutrition, poverty and vulnerability is compatible with value-chain development and integration into markets and likely to be more effective and efficient in the medium term compared to trickle-down strategies. This however must be supported by project strategies that must first and foremost tackle the needs of the poorer and more vulnerable producers, and the obstacles they face in: (i) improving their productions, quality and quantity-wise; (ii) processing and transforming their products at the local level and thus add value to their produce reaching the market; (iii) enhancing their participation in farmers' organizations; and (iv) strengthening their capacity to negotiate more profitable access to markets. This vision should inform all steps in a project design and implementation, from selection of participants to choices of value chains and market opportunities, to identification of capacity development needs including functional and financial literacy, nutrition and HIV prevention.

    Proposed follow-up: *The New RB-COSOP for Mozambique will have a Targeting Strategy broken down by specific sub-target groups to ensure their access and participation to benefit from investments and will be aligned with the Gender and Nutrition strategies.*

    Entity / are responsible for implementation: *IFAD financed investments lead by Government, service providers and implementation partners.*

    Deadline for implementation: *The new approach will start in 2018 following the completion of the new COSOP design and approval by Government and IFAD.*

20. **Recommendation 2: IFAD-supported projects in Mozambique should include among their principles, full attention to sustainable natural resources management and to strengthening climate-change resilience**. All projects should explicitly include as appropriate and relevant to their goals, and mainstream throughout all their activities including capacity development and technology transfer, sustainable natural resources management and climate change

adaptation and mitigation, in line with IFAD's most recent policies and the Government relevant strategies.

Proposed follow-up: *Based on the SECAP for the new COSOP, new investments will respond to the SECAP framework provided.*

Entity / are responsible for implementation: *IFAD financed investments lead by Government, service providers and implementation partners.*

Deadline for implementation: *The new approach will start in 2018 following the completion of the new COSOP design and approval by Government and IFAD.*

21. **Recommendation 3: IFAD's support to the Rural Finance sector should be conceptualised within a long-term commitment horizon and with basis on the lessons learned so far.** Based on the extensive lessons learned and experience gained by IFAD in the country and elsewhere, a long-term engagement, possibly over a 15-years horizon, would be required and appropriate to enable robust and transparent institutions at all levels and across all productive sub-sectors, to gain strength and credibility and provide sustainable financial services to the rural poor in Mozambique.

Proposed follow-up: *A national rural finance and enterprise programme is currently under design to respond to this recommendation.*

Entity / are responsible for implementation: *The Implementing agency and project staff lead by Government, IFAD and co-financiers, service providers and implementation partners.*

Deadline for implementation: *The new approach will start in 2018 following the completion and approval by Government and IFAD of the new Rural Finance and Enterprise Programme.*

22. **Recommendation 4: Enhance efficiency of financial execution.** Integration of IFAD-funded projects into the governmental procedures and systems, e.g. e-SISTAFE, should be pursued and sustained in the spirit of governmental ownership and for transparency reasons. Some specific measures will be nevertheless of paramount importance to raise implementation efficiency up to standards. These should include: (i) enable e-SISTAFE to meet the requirements of IFAD-supported projects in terms of flexibility in work-plans and reporting, formal requirements for beneficiaries and timing of disbursement; (ii) develop a fast-track mechanism for approval of contracts and service procurement acts for IFAD-supported projects, that fully complies with the requirements of the State in terms of controls and transparency; (iii) negotiate with other partners for mainstreaming their contributions within IFAD's standard disbursement and financial execution procedures; and (iv) strengthen the capacity of PMUs in financial planning.

Proposed follow-up: *The process has commenced to further expand the work which responded to EU financed requirements.*

Entity / are responsible for implementation*: Ministry for Economy and Finance.*

Deadline for implementation: *It is anticipated that the process will be ready for implementation by the end of the first quarter of 2018.*

23. **Recommendation 5: Develop principles for the reliance on Service Providers in project implementation.** The principles should include the following lessons learned: (i) Service Providers should be recruited only for components and activities that governmental organizations and PMUs do not have the capacity to implement; (ii) Service Providers should be selected with basis on their proven experience and competence, and long term engagement in the themes for which they are recruited; (iii) Service Providers have in general proven to be more effective than governmental services in supporting empowering processes at the level of communities, associations, households and individuals; (iv) Service

Providers who do not have previous experience in handling contracts in the framework of an IFAD-funded project should be entitled to an induction training on administrative and financial procedures, and relevant clear manuals should be prepared at the very beginning of a project's life.

Proposed follow-up: *The recommendation will be responded in the design of new investments, including training and access to contracting resources which will be provided.*

Entity / are responsible for implementation: *IFAD / Government.*

Deadline for implementation: *Commence immediately.*

24. **Recommendation 6: Dedicate more attention and resources to Knowledge Management and Policy Dialogue.** IFAD headquarters and ICO should ensure that sufficient resources are allocated in project and ICO budgets for non-lending activities, starting from sound M&E systems, and that the country-programme rests on the following pillars:

i) the development of robust outcome-level COSOP and projects' monitoring indicators;
ii) a country programme-level Knowledge Management Strategy closely anchored to key COSOP elements and to those project components that can usefully be up-scaled through national policies and strategies;
iii) the early identification of evidence-based issues and results that can be usefully fed into Policy Dialogue processes at a high strategic level, through appropriate Knowledge Management processes.

Proposed follow-up: *Within the new COSOP specific strategies for both Policy Engagement and Knowledge Management will be included.*

Entity / are responsible for implementation: *IFAD co-financed investments, Project Staff, IFAD.*

Deadline for implementation: *Will commence with Projects under design and the new COSOP starting in 2018.*

Signatures

Perin Saint Ange
Associate Vice-President
Programme Management Department
IFAD

Date

Adriano Afonso Maleiane
Minister of Economy and Finance
Ministry of Economy and Finance
Republic of Mozambique

14.09.2017
Date

COSOP Results management framework

Country strategy alignment	Key results for RB-COSOP			Indicative lending and non-lending activities for the 2018-2022
Agenda 2025 – the Nation's Vision and Strategies **Strategic Plan for the Development of the Agricultural Sector 2011–2020 (PEDSA)** **Operational Plan of the Agriculture Sector Development (PODA)** **National Climate Change Adaptation Mitigation Strategy** **Secure Land Programme** **National Plan of Aquaculture** **Aquaculture Development Action Plan (PADA)** **Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security**	**COSOP strategic objectives**	**Outcome indicators#**	**Milestone indicators#**	
	Development goal: **Contribute to inclusive rural transformation that enables the rural poor (particularly women and youth) to overcome poverty, food insecurity and malnutrition, through viable and sustainable livelihoods.**	Impact indicators (goal level) % reduction of poverty in target Districts* % of households reporting increased food security	No. of households that graduated above the poverty line * No. of households reporting increased food security*	**Ongoing Projects:** **Rural Markets Promotion Programme (PROMER)** **Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors (PROSUL)** **Artisanal Fisheries Promotion Project (ProPesca)** **New Programmes:** **REFP (EB Dec. 2017)** **Proposed New Investments** **Inland Aquaculture** **Pro-Poor Agri-food Value Chain Development in Mozambique or PROSUL Phase II** **Non-lending** **Knowledge management** **Policy engagement** **Nutrition** **Support to Accelerate Progress towards MDG 1C in Mozambique –**
	Strategic Objective 1: **Productive and sustainable water and land use / management[21] by the rural poor, notably women and youth.** IFAD will support its target groups, with a gender and youth focus, to access water and secure land, and sustainably manage natural resources, so they both can improve their food security - either through production or purchase of nutritious foods, and invest more time and money in their land as a livelihood strategy.	% of persons / households reporting improved access to water or water bodies, land, forests for production purposes. % of women reporting improved quality of their diets % of incremental increase of women whose membership in economic or social groups and their comfort in speaking in public22 Percentage of persons / households reporting adoption of environmentally sustainable and climate-resilient technologies and practices % of persons/households reporting reduced water shortage vis-à-vis production needs	No. of households that report having a diversified diet Households in vulnerable areas with increased water availability for agricultural production No. of land certificates issued to smallholder farmers Hectares of land under irrigation schemes constructed or rehabilitated Hectares of agricultural land improved through climate-resilient soil and water conservation measures Volume of marketed farm output No. of hectares of farmland under water-related infrastructure constructed /rehabilitated Number of groups supported to sustainably manage natural resources and climate-related risks Number of production/farmer groups operational (formal/informal)	

[21] This is also inclusive of: climate resilience, natural resource management, etc.

[#] Reporting on Outcome and Milestone indicators will be disaggregated by: Youth, Women, Men

[22] This indicator will be broken down by: group member and public speaking. From a baseline already undertaken for the Feed the Future: FEEDBACK. 2014. Feed the Future Mozambique Zone of Influence Baseline Report. Rockville, Maryland: Westat it is proposed from the baseline that "Prevalence of poverty (i.e., people living on less than $1.25 per day) is significantly lower among women with higher decision-making power than among women with lower decision-making power." Thus the COSOP could track the impact of women's empowerment on poverty reduction.

Poverty Environment Initiative **The National Investment Plan for the Agricultural Sector 2014–2018 (PNISA)** **Climate Change Adaptation and Mitigation Strategy (2012) for the period 2013–2025** **Nationally Determined Contribution** **National Plan of Action for Agriculture Adaptation to Climate Change (PAMC) 2015/2020** **National Plan of Action for Agriculture Adaptation to Climate Change** **Five Year Government Program (FYGP) 2015-2019** **National Strategy for Food Security and Nutrition** **National Multi-sectoral Plan of Action for the Reduction of Chronic Malnutrition 2011-2020** **Mozambican Financial Sector Development Strategy (FSDS)** **National Inclusion Strategy**	**Strategic Objective 2:** **Sustainable value chains for priority commodities are remunerative for smallholder producers and create employment for the rural poor.** IFAD will finance investments in productive climate-resilient rural infrastructure, support enterprise development and employment creation, and promote partnerships along the value chains, so enabling all target groups to improve their livelihoods and increase their incomes.	% of persons/households reporting adoption of new/improved inputs, technologies or practices, and increase in income-earning activities, % of persons/households reporting an increase in production Number of new jobs created % of persons / households reporting improved physical access to markets, processing and storage facilities % of rural producers' organizations engaged in formal partnership, agreements or contracts with public or private entities	Number of smallholder households associated into trained/organised groups on Natural resource management Number of new or adapted good agricultural practices – including CSA, post- production, irrigation and nutrition – included in the extension service workers programme Number of smallholder farmers trained in post-production, processing and marketing activities Number of rural producers' organizations reporting an increase in sales Post-harvest losses reduced by 80% by 2022 Commodity platforms active and operationally self-sufficient	**IFAD Sub-Programme (MDG-1c)** **Partnerships:** **European Union** **Rome Based Agencies** **World Bank** **International Potato Centre** **African Development Bank**
	Strategic Objective 3: **Poor rural people are able to use financial services to develop their livelihoods, and manage risks and withstand shocks.** The IFAD investment would enable FSPs to offer affordable, responsible and accessible financial solutions for poor rural people that are sustainable and at scale. An infrastructure that enables ubiquitous, efficient, open and safe financial markets in place and the policy and regulatory outline for financial inclusion is enforced.	% of persons/households reporting using rural financial services % of operationally and financially sustainable enterprises % of partner financial service providers with portfolio-at-risk ≥30 days below 5%	No. of households with strengthened financial literacy No. of households with access to financial services No. of smallholder households associated in newly formed and trained saving and credit groups No. of jobs created in agricultural value chains No. of farmers / entrepreneurs accessing credit for business No. of smallholder farmers trained in business and entrepreneurship No. of financial institutions participating in IFAD's portfolio	

Natural resource management and climate change adaptation

Social, environmental and climate assessment procedures (SECAP) – Natural resource management and climate change adaptation: background, national policies and IFAD's intervention strategies

A. Introduction

This SECAP (Social, Environmental and Climate Assessment Procedures) note is prepared as part of the RB-COSOP formulation process for Mozambique for the period 2017-2022; and in line with IFAD's climate resilience and environmental sustainability mainstreaming focus in all its projects. The SECAP is informed and shaped by: IFAD's Climate Change strategy (2010), the 10 point Climate Mainstreaming Plan (2014) and the Environment and Natural Resources Management Policy (2011), Multilateral Environment and Climate Agreements, the environment and climate policies/strategies of the government of Mozambique, feedback from meetings with stakeholders, field visits during the COSOP mission (6 -15 July 2017) and the Independent Office of Evaluation 2017 report on the past RB-COSOP (2010-2016). The primary objective of this SECAP note is to analyse the natural resource management and climate change trends, and to outline IFAD's and the Government of Mozambique's environment and climate priorities and opportunities, in line with the country's Intended Nationally Determined Contribution (INDC).

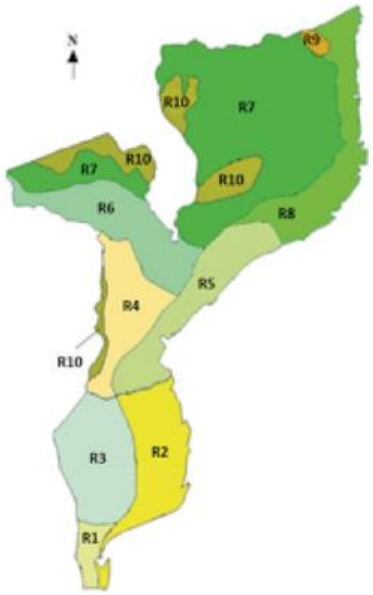
B. Mozambique's environment, social and climate change status and trends

Natural resource base and agroecological zones

Mozambique's terrestrial ecosystems are dominated by the Miombo woodlands and the Mopane woodlands in the west, southwest and the Zambezi Valley. The grasslands, wooded savannas, and bush lands of the dry areas are found in the south. Montane ecosystems are the evergreen forests, afro-alpine grasslands, shrub-lands, and moorlands. Extensive wetland and freshwater ecosystems are varied and comprise rivers, natural lakes and artificial lakes. Coastal ecosystems include sandy beaches, vegetated coastal dunes, coastal lakes, swamps, and as well as Mangrove forests found in estuaries and deltas on the northern coast. Marine ecosystems include sea grass beds, and coral reefs along the northern coast23. Over 60per cent of the total population of Mozambique lives along its 2,700km coastline, which is highly vulnerable to cyclones and storms. Drought and floods are common and devastating natural hazards in some parts of the country[24].

Agriculture is the backbone of Mozambique's economy, contributing about 25per cent of the GDP and employs 80per cent of the country's labour force. Nearly 95per cent of agricultural production (crop, livestock and fisheries) is rain fed, and by smallholder farmers. Although the sector has immense potential to reduce poverty and enhance economic growth, it is faced by several constraints including: low levels of basic agronomic practices, poor adoption of improved technologies and inputs, low investment and development of irrigation infrastructure, insufficient capacity and extension delivery, low levels of mechanisation, insecure land tenure in some regions, poor infrastructure and limited access to markets, unsustainable natural resources management, among others. These constraints are compounded by climate change, which is the major threat to improved food security and livelihoods[25].

[23] Care International (2006). Climate change and poverty in Mozambique-realities and response options for CARE. CARE.
[24] USAID (2012). Climate change adaptation in Mozambique. USAID
[25] World Bank (2015). Mozambique: agricultural sector risk assessment. Risk prioritisation. World Bank Group.



Mozambique has ten agro ecological zones that encompass arid and semi-arid conditions (south and southwest), sub-humid zones (center and the north) and humid highlands (mostly in the central provinces). The Northern Region (Niassa, Cabo Delgado, and Nampula provinces) receives 1000-1800 mm of annual rainfall and produces the country's highest agricultural output. The Central Region (Zambézia, Tete, Manica, and Sofala provinces) receives a mean annual precipitation of 1,000 to 1,200 mm, and its agricultural production is lower than in the north. The Southern Region (Inhambane, Gaza, and Maputo) with 400 -1,000 mm of annual precipitation is drier with lower agricultural output than the rest of the country. This region is exposed to recurrent floods and droughts, with livestock playing an important economic role due to limited precipitation and the riskiness of rain fed crop production. The various agro ecological zones are described here:

R1: "The inland Maputo and South Gaza: predominantly a cassava, maize, and cattle production zone with potential for expanding irrigation.

R2: Coastal area south of Save River: mainly a cassava, cashew nut, and coconut production zone. Land shortages have forced the reduction of the fallow period from 20 to 5 years, with potential serious effects on land productivity.

R3: Central and North Gaza and the West Inhambane: one of the most arid zones of the country, suitable for sorghum and millet production. Farming families also have small holdings of cattle and goats

R4: The medium-altitude region of Central Mozambique: a predominantly maize, sorghum, cassava, and cowpeas production zone, with good potential for cotton cultivation.

R5: The low-altitude region of Sofala and Zambezia. Rice cultivation dominates.

R6: The semiarid Region of the Zambezi Valley and Southern Tete Province: mainly a sorghum and millet production zone, with potential for cotton cultivation on well-drained land and rice on the margins of watercourses.

R7: The medium-altitude region of Zambezi, Nampula, Tete,Niassa, and Cabo Delgado: cropping systems are dominated by either maize or sorghum. Cassava is widely cultivated, tobacco is a major cash crop with potential for cotton production.

R8: The coastal littoral of Zambezi, Nampula, and Cabo Delgado: a mainly cassava and millet production zone. Rain fed rice is cultivated in low lands and cashew is a major cash crop.

R9: north interior region of Cabo Delgado – Mueda Plateau: characterised by maize, sorghum, cowpea, cassava and sesame production. Cashew is a major cash crop.

R10: The high-altitude region of Zambezi, Niassa, Angonia, and Manica: maize, millet, beans, and potatoes are the main crops. Soil erosion and loss of soil fertility affect this zone."[26]

C. Environment and climate aspects

[26] IFAD (2017a). Country environment and climate profile for Mozambique. IFAD.

Mozambique is highly vulnerable to extreme weather events such as drought, cyclones and floods, as a result of climate change. The country's vulnerability is exacerbated by both its geographic location and terrain due to its long coastline, extensive land area below sea level, and the confluence of many transnational rivers into the Indian ocean27; as well as rapid population growth and widespread poverty that leads to over exploitation and degradation of the natural resource base as households try and meet basic needs,. Projected decreases in rainfall and increases in temperature are likely to have a negative impact on water availability, food security, health, and economic growth (climate change is expected to reduce GDP by 4 -14per cent by 205028), especially for poor smallholder farmers, who are the least prepared to cope with or adapt to the impacts of climate change. Drought and flood related crop failures contribute immensely to food insecurity, malnutrition, unstable livelihoods and poverty, particularly among the rural poor. Furthermore, Mozambique's natural resource base is under significant pressure from overgrazing, wildfires and rapid deforestation. The key environmental, climate and social challenges are outlined below29.

Temperature and rainfall variations: Mozambique's climate projections reveal that the average temperature increase as a result of climate change is likely to range from 10C to 40C between 2010 and 2100. The Limpopo, Zambezi valley and coastal regions are expected to have the highest increases of up to 30C by 2055. By 2090, the likelihood of daily average temperature of up to 350C is expected. Prolonged drought and heat waves are expected to increase, especially in the South and Central regions. Although rainfall projections do not reveal significant changes over time, variations are expected across regions and seasons. In the north, an increase of between 1 to 8per cent is foreseen (2010-2090), while a decrease (up to 31per cent) is projected for the South, West and Central regions, especially at the onset of rains between September and February. The coastal region could experience a decline of up to 24per cent between June and August30.

Extreme weather events: Drought, floods and cyclones are the main extreme weather events experienced in Mozambique. Drought and floods are the most common agricultural and natural resource base risks for Mozambique and lead to low agricultural productivity, loss of crops or livestock, increased food insecurity, malnutrition, disease outbreaks in humans and livestock (e.g. cholera, typhoid, avian flu, grain borers, army worms etc.), loss of lives and property, and increased poverty as households sell assets to meet basic needs. The southern and central regions are the most prone to drought, while the coastal, northern and central regions are prone to flooding. Tropical storms/cyclones mainly occur in the coastal regions, with devastating effects but are not as common as drought and floods.

Table 1: Geographical zones and their key climatic risks in Mozambique

Geographical zones	Key climate and environment risks and hazards
Coastal urban areas (most important, Maputo and Beira)	This zone is marked by highly differential vulnerability across income groups, with large peri-urban areas vulnerable to flooding from both rivers and the ocean.
Nonurban coastal strip	This zone is marked by high vulnerability to coastal flooding and storm surges from tropical cyclones as well as threats of erosion. It is relatively food secure, with low rates of poverty; it encompasses the coastal provinces of Maputo, Gaza, Inhambane, Sofala, Zambezia, Nampula, and Cabo Delgado but the Central and Northern Provinces are more affected.

[27] Dutch Sustainability Unit (2015). Climate Change Profile - Mozambique. Netherlands Commission for Environmental Assessment.
[28] USAID (2012). Climate change adaptation in Mozambique. USAID
[29] Care International (2006). Climate change and poverty in Mozambique-realities and response options for CARE. CARE.
[30] Dutch Sustainability Unit (2015). Climate Change Profile - Mozambique. Netherlands Commission for Environmental Assessment

Limpopo river valley districts upstream of Xai-Xai	This zone is unique in being highly exposed to two very different threats: river flooding and drought. It has relatively high population density, and thus high numbers of poor people. Gaza and Southern Inhambane are under its influence.
Other flood-prone river valleys	These zones, in particular in the Buzi and Zambezi river valleys, are highly susceptible to floods (especially those caused by tropical cyclones), but less so to droughts. Sofala and Low Zambezia are within this zone.
Drought-prone inland areas (especially in the South Inhambane)	These areas are highly susceptible to drought: adequate rainfall to support agriculture is an exception rather than the rule. Inhabitants of this region are often dependent on remittances for survival. Population densities are low.
Inland areas of higher agricultural productivity (including the highly productive and populated areas in Zambezia)	These areas are perhaps the least vulnerable in Mozambique, facing adequate rainfall most years, and no extreme risks from fl ooding or tropical cyclones. They are somewhat heterogeneous in terms of poverty rates and food security. The highly productive regions stand out for their high population density and relatively low vulnerability.

Source: World Bank (2016).

Land degradation: More than 42per cent of land Mozambique's total land is degraded and another 19per cent is undergoing active degradation, including desertification in the arid and semi-arid areas of the country. Land degradation is highest in the provinces of Manica, Nampula, Sofala and Zambezia, with detrimental impacts to agricultural ecosystems, crop production and food security. The main causes of land degradation in Mozambique are soil erosion, nutrient depletion through unsustainable agricultural practices, deforestation, overgrazing and use of fire to clear vegetation (affects close to 40per cent of the country) among others.

Deforestation: Forests cover about 40per cent of Mozambique's, with Miombo and Mopane forest being the country's most extensive forest types. More than 80per cent of the country's energy needs come from woodlands and forests As a result of this demand deforestation is a significant problem in the country (220,000ha are lost each year), caused by fuel wood collection, forest fires, excessive logging, and poor regulation and controls. Environmental impacts of deforestation include a loss of ecosystem services that leads to a reduced residence time of rainfall across the landscape that to increased runoff and erosion, flooding, land degradation and sedimentation of important water bodies[31].

Degradation of fisheries and marine resources: sea level rise resulting (especially in the coastal regions) from climate change. Mozambique's 2700km coastline comprises several ecosystems, including mangrove forests, dunes, inland lagoons, reefs and coastal lakes that support a wide range of species. Increase in sea level is expected to contribute to erosion and flooding of coastal ecosystems, and land. In freshwater ecosystems, salt water intrusion is likely to lead to losses in fish populations, poor water quality, and destruction of fishing infrastructure and equipment.. Human induced challenges include overfishing and overstocking, illegal fishing, poor water quality and quantity management, pollution, lack of clear biophysical guidelines on development of inland aquaculture, and limited capacity to implement existing laws and regulations. Given that fisheries contributes to 4per cent of GDP, represents 28per cent of foreign exports, and provides 50per cent of all animal protein for the country, addressing climate change and natural resource management issues in the sector is crucial[32].

[31] World Bank (2016). Republic of Mozambique: systematic country diagnostic. World Bank Group.
[32] World Bank (2015). Mozambique: agricultural sector risk prioritization. World Bank Group.

Water resources degradation and scarcity: Mozambique faces three major challenges that will have severe consequences for the nation's water resources. These are increased incidences of drought, floods, and saltwater intrusion along its 2700 km coast line due to sea level rise. Human induced water resources degradation caused by industrial, agricultural and domestic waste discharge into water bodies, deforestation, poor water and land use practices are likely to exacerbate the situation. Artisanal mining also contributes to erosion and siltation in some parts of the country. The country's primary challenge will be to manage these challenges through an integrated water management system, in order to reduce the vulnerability of the population and the natural resource base.

Loss of biodiversity and ecosystem services: Mozambique has a large diversity of flora and fauna, with over 5500 plant species and 5500 plant species, including national parks and forests as well as fisheries. The primary threats to biodiversity and ecosystem services are: deforestation, land and ecosystem degradation, unregulated harvesting of valuable species, and introduction of invasive plant and animal species. Insecure land tenure and weak policy implementation pose serious challenges to the sustainable management of natural resources33.

Air pollution (indoor and outdoor air pollution): Indoor air pollution in Mozambique is mainly as a result of fuel wood use for energy, with significant health problems, especially among women and children. Mining and burning of vegetation also contribute areas outdoor air pollution.

Health: Drought, floods, cyclones and increased temperatures are likely to have negative impacts on health. Malaria is likely to spread due to increased flooding and temperatures, while cholera outbreaks may also be exacerbated due to contamination of water as a result of flooding. Farming communities battling HIV/AIDS are also likely to have challenges coping with climate change due to negative effects on food security and nutrition.

Social risks associated with climate change (poverty, gender inequalities, and social conflicts): Poverty is endemic in Mozambique's rural areas. Poor people are much more vulnerable to climate change due to their reliance on the natural resource base and limited livelihood options. Due to the disproportionate nature of the effects of poverty, it is likely to lead to gender inequalities and social conflicts. Women are more vulnerable than men because they are the primary natural resource users and managers, and have less control over access and use of financial and physical resources. Social conflicts may occur due to growing pressure on land, degradation of land, and insecure land tenure34.

Institutional coordination: the major institutional constraint in dealing with environment and climate issues at national and provincial level is weak coordination and integration of the various government institutions and departments. This is largely due to limited human, technical, financial and physical resources; as well as synergy in planning and implementation of activities. Key issues include poor communication of climate information with different actors, weak early warning systems, inadequate environmental monitoring and inspection, as well as environmental education.

D. National policies, legislations, strategies and programmes

The Government of Mozambique has developed, implemented and committed to several policies, agreements, strategies and programmes to ensure sustainable natural resources management and climate resilience in the country. The government has ratified the UN Framework Convention on Climate Change (UNFCCC), and INDC. The INDC recognises adaptation and mitigation as critical to combating climate change through increased climate resilience and low carbon development pathways. The key actions in the INDC include:

[33] MICOA (2010). National biodiversity strategy and action plan. Ministry for the coordination of environmental affairs (MICOA).
[34] Care International (2006). Climate change and poverty in Mozambique-realities and response options for CARE. CARE.

climate resilience in agriculture, fisheries and livestock development; evidence generation and vulnerability assessments to inform adaptation to climate change; strengthening early warning systems and technical capacity; protection of biodiversity; afforestation and sustainable soil and water management; institutional coordination; climate finance; and climate-resilient technologies and infrastructure[35] etc. The INDC is aligned to the National Adaptation Plan[36]. Additional relevant policies and programmes include the following:

Ratified multilateral agreements: Mozambique has ratified major multilateral environmental and climate agreements, including Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Ship Pollution, and Wetlands. Mozambique is also implementing global conventions on climate change and biodiversity: UN Framework Convention on Climate Change (UNFCCC), including setting targets for its Intended National Determined Contribution to the UNFCCC; Convention of Biological Diversity (CBD); the Convention to Combat Desertification (CCD); UN conventions on Ozone Layer Protection and on Wetlands; and the Kyoto Protocol.

National Adaptation Programme of Action (NAPA) (2007): Aims to coordinate the elaboration and implementation of an action plan for adaptation to climate change for various economic and social development sectors, with an emphasis on disaster risk reduction, early warning systems, agriculture, fisheries, energy, water resources, ecosystems, and coastal zones. The NAPA identifies four high level priority actions for Mozambique: strengthening of an early warning system; strengthening capacities of agricultural producers to cope with climate change; reduction of climate change impacts in coastal zones; and management of water resources under climate change.

National Climate Change Adaptation Mitigation Strategy - NCCAMS (2013-2025): In line with the Government of Mozambique's INDC, the National Climate Change Strategy seeks to reduce vulnerability to climate change and improve livelihoods. The strategy identifies core themes: (i) adaptation and disaster risk management; (ii) mitigation and low carbon development (iii) cross-cutting issues. These include institutional and legal reform for climate change, research on climate change, and training and technology transfer. The Strategy established a Climate Change Unit within the MITADER which represents the technical unit on climate change issues at National level. A Centre of Knowledge on Climate Change (CGCMC) within the Ministry of Science and Technology has also been proposed.

National Plan of Action for Agriculture Adaptation to Climate Change (PAMC) 2015/2020 – the plan is aligned to the Strategic Plan for Agriculture Development (PEDSA) 2011-2020; the National Programme for Agricultural Sector Investment (PNISA); and the National Climate Change Adaptation and Mitigation Strategy (NCCAMS) 2013-2025. The Plan supports the government in its efforts to support smallholder farmers to cope with climate change. The four main objectives are: i) improve institutional coordination; ii) strengthen extension services; iii) increase the adoption of climate smart agriculture (CSA) practices, and iv) plan, implement and monitor projects.

National Climate Change Monitoring & Evaluation System (SNMAMC) – The National Climate Change Monitoring and Evaluation System (SMNAMC) has been developed with the aim of integrating climate change responses in government planning and budget systems across ministries. The system provides the basis for national reporting to the Council of Ministers and international conventions, as well as reporting on climate finance. Its key objectives are to: improve the efficiency in fulfilling national and international reporting

[35] Government of Mozambique (2015). Intended Nationally Determined Contribution (INDC) of Mozambique to the United Nations Framework Convention on Climate Change (UNFCCC). Ministry of Land, Environment and Rural Development, Republic of Mozambique.
[36] MICOA (2012). Mozambique's intended nationally determined contribution. http://www4.unfccc.int/submissions/INDC/Publishedper cent20Documents/Mozambique/1/MOZ_INDC_Final_Version.pdf

requirements; ii) provide a way to assess the effectiveness of climate change responses; iii) improve access to and accountability for domestic and international climate finance; iv) improve the formulation of future policies and programmes by learning from past implementation.

Environmental Act, 1997 – The Environmental Act defines a legal basis for the use of natural resources and environmental management, with the ultimate goal of promoting sustainable natural resources use and management.

Environmental Law (Law no. 20/97) – Environmental Impact Assessment (EIA) is a legal requirement under the Environmental Law (Law no. 20/97) for any activities which may have direct or indirect impacts on the environment. The Environmental Law requires that activities which are likely to cause significant environmental impacts need to be licensed by MITADER (DINAB), based on the outcomes of the EIA process. The Regulation regarding the Environmental Auditing Process (Decree no. 25/2011) was established to regulate supervisory and auditing activities related to compliance with environmental protection standards at the national level.

Other key strategies, regulations and policies include: Framework for disaster management including mitigation (Law 15/2014); Policy on the development of a new and renewable energy resolution (Resolution 62/2009); Strategy for new renewable development (2015-2020); National biofuels policy and strategy; Regulating procedures for project approval for the reduction of emissions deforestation and forestry degradation; National strategy and action plan of biological diversity (2015-2035); National environmental policy (Resolution No. 5/1995); National irrigation strategy (2011-2019); National action plan for reducing poverty (2011); and the Strategic plan for development of the agricultural sector (PEPSA) (2010).

Key institutions: i) The Ministry for the Coordination of Environmental Affairs (MICOA) is the lead environmental management and coordination body, and the national focal point for the United Nations Framework Convention on Climate Change. MICOA is responsible for coordinating projects, and has formed a multi-disciplinary and multi-institutional advisory group on adaptation. ii) The National Directorate of Forests, within the Ministry of Agriculture and Rural Development, focuses on expanding field-based and conservation activities, and strengthening the functional and operational capabilities. iii) The National Meteorology Institute on New Early Warning Systems/Warning of Tropical Cyclones aims to reduce the negative effect of cyclone events by disseminating relevant information though educational campaigns, media, publications, and stakeholder collaboration. iv) The Technical Secretariat for Food Security and Nutrition addresses climate change and food security challenges.

E. Lessons from investments in climate resilience and environmental sustainability in Mozambique

Based on lessons from previous and current interventions by IFAD (PROMER, PROSUL, PROAQUA, PROMER, PROPESCA, PRODIRPA); government of Mozambique (including other development partners e.g. World Bank, African Development Bank, FAO, Care International etc.); and an evaluation undertaken by IFAD's Office of Independent Evaluation in 2016 for the 2010-2016 RB-COSOP. The evaluation revealed that the portfolio achieved limited success, overall, in integration of natural resources management and climate change adaptation into projects. It was recommended that IFAD-supported projects should mainstream sustainable natural resources management and climate resilience into all their ongoing and future project interventions[37]. To achieve this, and consistent with the

[37] IFAD (2017 b). Republic of Mozambique: country strategy and programme evaluation. IFAD's Independent Office of Evaluation, Rome.

country's INDC, the key areas of focus and improvement include: i) environmental awareness creation and education, ii) strengthening early warning systems and weather information, iii) dissemination of climate and weather information to farmers, iv) strengthening local, provincial, and national capacities (farmers and government) for climate resilience v) promote the development, promotion, transfer, and adoption of climate smart technologies among farmers; vi) to strengthening strategic partnerships between farmers, government bodies, private sector, academia, and research to foster constant information exchange and learning, vii) enhancing research location-specific climate monitoring and modelling, and vulnerability mapping and risk assessments; viii) climate smart agriculture; ix) sustainable soil and water management; x) afforestation and reforestation; xi) biodiversity protection; and xii) strong institutional coordination at national and provincial levels.

F. Strategic orientation of the RB-COSOP and proposed interventions

Based on the lessons learned from the RB-COSOP (2010-2016), the new COSOP should focus on mainstreaming climate resilience and environmental sustainability into all current and new projects. Stakeholder consultations during the COSOP field mission confirmed and highlighted that access to and sustainable management of land and water resources were key to food security, poverty reduction and adaptation/mitigation of climate change in Mozambique. To guide the overall strategic orientation of the COSOP, this SECAP proposes the primary strategic objective be:

1) To promote integrated access to and sustainable management of water and land resources, climate resilience and environmental sustainability in future country programmes, and scale up proven successes from previous and ongoing programmes.

The specific objectives that will be addressed by the strategic objective are as outlined below:

i) To promote the transfer and adoption of proven climate smart and sustainable land and water technologies/practices for agriculture, livestock and fisheries.
ii) Develop or strengthen early warning systems, weather information systems, and integrated land and water management systems.
iii) Strengthen national and local capacities for sustainable land and water management, and climate change adaptation

Table 2 of this SECAP note proposes specific action to address the outlined objectives as well as indicators and outcomes to guide progress. The matrix will inform future design and implementation of projects in line with the government priorities.

Table 2: RB-COSOP proposed priorities, next steps, proposed indicators and expected outcomes

Priority 1: Promote the transfer and adoption of proven sustainable land and water technologies/practices for agriculture, livestock and fisheries	**Next steps**	**Proposed indicators**	**Expected Outcomes**
1) Investment in efficient and effective water utilisation and management: a) Multi-purpose boreholes to ensure access to water for production, domestic use, industrial use and enterprises. b) Investment in water harvesting and water conservation techniques/technologies e.g. small-scale irrigation technologies (drip, sprinkler, fallow irrigation methods; zai pits; sand dams etc.) 2) Investment in land and water resources rehabilitation and restoration: a) Climate smart agriculture practices e.g. afforestation/re-afforestation, agroforestry, conservation agriculture; drought tolerant and short maturing varieties; changing crop patterns, crop and livestock diversification; integrated pest and disease management; and renewable energy (biogas and solar) etc. 3) Investment in smallholder farming intensification (e.g. animal traction) and mechanisation to boost food security.	i) Formulate new projects that promote adoption of sustainable land and water technologies/practices. Work closely with line ministries and relevant stakeholders to identify suitable technologies for specific agroecological zones, and, to determine cost efficiency and profitability at small holder level. ii) An inventory of ongoing similar activities and projects by other development partners, in order to identify successes for further scaling up, lessons, or areas of synergy in implementation e.g. World Bank's work on deforestation. iii) Identification of priority investments and activities based on sound evidence and exhaustive stakeholder engagement. iv) Investigate the sustainability and feasibility of ground and surface water extraction and use for boreholes and irrigation.	*Strategic indicator* i) Number of producers in agriculture, livestock and fisheries sectors have adopted sustainable land and water technologies/ techniques for increased food security and income generation. *Specific indicators* i) Number of village level multifunctional boreholes constructed and functioning. ii) Number of farmers adopting water harvesting and water conservation technologies/practices. iii) Number of farmers adopting climate smart agricultural practices and renewable energy technologies. iv) Area of land in ha under sustainable land and water management practices. v) Number of farmers who have received sufficient practical training or extension services on water harvesting and conservation techniques, climate smart agriculture practices, multipurpose boreholes, animal traction/mechanisation. vi) Number of persons accessing technologies that sequester carbon or reduce green house gas emissions.	i) Farm and livestock productivity, food security, incomes and climate resilience are increased for XX number of participating households.
Priority 2: Develop or strengthen early warning systems, weather information systems, and integrated land and water management systems	**Next steps**	**Proposed indicators**	**Expected outcomes**
1) Investment in capacity and technologies to promote accurate localized early warning, weather and climate information systems to farmers and relevant actors in a timely and simple manner. 2) Identify and apply appropriate ways to communicate climate and weather information as well as provide advisory services to farmers on weather and climate risks, and mitigation measures. 3) Adopt digital and geospatial approaches to identifying risks, planning, utilizing and managing land and water resources at local and national levels. 4) To lobby the national government, climate finance donors	i) Work closely with the National Disaster Management Institute, The National Meteorology Institute, MITADER, and MICOA to identify gaps, needs and priority investments/needs at national, local and farmer levels. ii) Undertake an inventory of ongoing activities by government and other development partners	*Strategic indicator* i) Number of farmers/households/enterprises/industries whose vulnerability to climate change, extreme weather events, and degradation of land and water resources has reduced by XXper cent. *Specific indicators* i) Number of training and practical exposure events provided to local and national officers on early warning systems, weather and climate information data collection, analysis and	i) To improve early warning systems and reduce vulnerability to climate change, extreme weather events, and degradation of land and water resources among smallholder farmers, enterprises and industries.

etc for increased national budget allocations to early warning, weather and climate information communication, and land and water management systems. 5) Increase coordination, synergy and cooperation between relevant ministries, departments, institutions and development partners at national and local levels; and to promote cross-learning exchanges regionally.		dissemination to farmers and key actors. ii) Number of technologies (e.g. GIS, Earth observation, LDSF) and digital platforms installed and operational, and the amount spent in USD. iii) persons (i.e. farmers, technical officers, local administration etc.) reached at national, local and community levels with climate information services e.g. through advisory platforms/strategies/media e.g. mass media, mobile phones, community radio etc. iv) Number of meetings or platforms/dialogues with government/donors, agreed actions, or the allocated amount of money in USD for early warning systems and climate information. v) Existence of an inter-institutional coordination unit to build synergies and complement efforts. vi) Number of regional exchange visits for national, local officers and farmers.	
Priority 3: Strengthen national and local capacities for sustainable land and water management, and climate change adaptation	**Next steps**	**Proposed indicators**	**Expected outcomes**
1. Invest in public (government, private sector, research actors etc.) and farmer targeted awareness creation and information sharing on land and water management and climate resilience. 2. Expansion of climate resilience focused extension and investment in new/innovative delivery channels/methods at national and local levels. 3. Invest in integrated coordination of climate resilience, and sustainable land and water management among line ministries and development partners at national and local levels. 4. Scale up successful initiatives and build upon on going ones e.g. the district adaptation planning being supported by PROSUL, an IFAD funded project.	i) With relevant line ministries and institutions, identify gaps, needs and priorities for investment.	*Strategic indicator* i) Number of government initiatives towards strengthening government and stakeholders' capacities as well as promoting synergy and coordination on sustainable land and water management and climate resilience. *Specific indicators* i) Number of districts/zones that develop and/or implement climate resilience, and sustainable land and water management plans. ii) Establishment/strengthening of a coordination unit encompassing key actors; and development and implementation of an agreed action plan. iii) Number of extension delivery channels or curricula embedding climate resilience, and sustainable land and water management extension provision. iv) Number of successful initiatives scaled up or expanded.	i) To improve local and national capacities for sustainable land and water resources management, and climate resilience.
Priority 4: Proposed areas of focus for supplemental climate finance from GCF, GEF, ASAP, etc.	**Next steps**	**Proposed indicators**	**Expected outcomes**

1. Investment in evidence generation and dissemination of farmer targeted climate information and vulnerability mapping. 2. Investment in operationalizing or strengthening national systems for monitoring and evaluation of climate change adaptation and land/water degradation (e.g. through the Land Degradation Surveillance Framework)	i) Work closely with relevant line ministries, private sector, development actors, research institutions etc. to identify priority investments. ii) Identify M&E and learning needs (e.g. providing M&E technical capacity to ministries and establishing climate-related databases) and invest in building/strengthening an integrated national M&E system linking different line ministries and relevant actors/institutions.	i) Amount of money in USD secured to fund climate resilience related activities e.g. from GEF, ASAP, GCF, LDCF etc.	i) Additional climate financing is mobilised to support ongoing interventions.
Priority 5: Knowledge management and learning for climate change adaptation and sustainable land and water management	**Next steps**	**Proposed indicators**	**Expected outcomes**
i) Strengthen the existing knowledge management centre through capacity building and technology for communication and dissemination of knowledge products. ii) Development of knowledge products for successful climate resilience related practices/technologies/initiatives for dissemination to different target groups. iii) Identify, inventorise and disseminate success stories/technologies/practices with potential scalability at national/regional levels e.g. on climate smart agriculture, efficient water management and conservation methods, early warning and climate information systems.	Work closely with the already established knowledge management centre for climate change adaptation to prioritise knowledge and learning needs at local and national levels.	*Strategic indicator* i) Strengthen the capacity of the national knowledge management centre for climate change adaptation to promote integrated knowledge sharing and management at national and local levels. *Specific indicators* i) Number of knowledge products developed and disseminated e.g. in the form of films, peer to peer learning, info graphics, publications, exposure visits, illustrations, online portals/blogs, radio/tv, song and dance etc. ii) Inventory of successful practices/technologies/approaches with potential scalability developed and shared with stakeholders and the public.	To enhance integrated knowledge generation, sharing and management on climate resilience at national and local levels.

Sources: COSOP Field interviews and observations, government policies and strategies

G. Preliminary Environmental and Social category: The COSOP's preliminary Environmental and Social category is tentatively B, considering that the COSOP will aim to improve environmental sustainability and climate change adaptation and resilience in all its interventions. Nationally, there are strategies, legislations, and institutions to reduce the potential negative impacts. Thus, it can be concluded that environmental impacts will be manageable and/or reversible. Table 3 highlights the proposed value chains, potential risks and their mitigation measures. The proposed measures include: conservation agriculture, efficient water use and management, afforestation and re-afforestation, strengthening early warning systems, strengthening producer and actors' capacities, and promoting renewable energy.

The category B classification may however change based on further assessment and elaboration of specific risks within proposed value chains. For instance, the proposed red meat value chain poses serious concerns from possible contamination with Brucellosis disease, while inland or marine aquaculture development could lead to serious environmental challenges if not well managed. The design phase of new projects must include comprehensive SECAPs, Environmental Impact Assessments (EIAs), and the development of Environment and Social Management Plans (ESMPs). Understanding social aspects of climate change such as poverty, gender inequalities, and social conflicts is critical and would improve the design and implementation of projects. It is important that during the development of the SECAPs, the Environmental Licensing department under MITADER, is involved, since they have developed environmental standards and categories with very elaborate thresholds. They also are responsible for licensing and determine whether projects require EIAs, ESIAs, biodiversity offsets, resettlement plans etc.

H. Environment and Social Management Plan (ESMP)

The ESMP is an important building block for achieving sustainable development goals, and mitigating environment, climate and social risks outlined in Table 3 above. The ESMP will also ensure that project activities comply with IFAD's environment and climate policies, SECAPs, and the Government of Mozambique's legal frameworks and requirements. The overall responsibility of the ESMP will rest with the Environment Ministry and the National Environment Management Authority in collaboration with other relevant line ministries.

The ESMP should be completed in the start-up phase of the project as a condition for the first withdrawal. The key aspects of the ESMP that would need to be taken into consideration when designing and undertaking it include: stakeholder engagement, screening to identify specific environmental, climate and social risks; risk classification and mitigation actions; environmental and social impact assessments; environmental and social commitment plans; implementation, monitoring and reporting procedures; capacity development for environment and social standards; disclosure of relevant project information; and a grievance mechanism. In addition, measures should be put in place to deal with social risks such as poverty, gender inequalities and conflicts; including strategies to ensure free, prior and informed (FPIC) consent from communities in all activities/projects.

The monitoring of the ESMP will be done annually or biannually during supervision missions. Evaluation will be undertaken at mid-term level and at project completion. The monitoring indicators (output, outcome and impact level) will be developed during the ESMP development stage and integrated in the PIM. Indicators should also include some output indicators mentioned ORMS.

I. Climate risk categorization

The COSOP's climate risk classification is high given that Mozambique is highly vulnerable to extreme weather events and climate change. Additionally, the target group is heavily

dependent on climate-sensitive natural resources, and, climate variability is likely to have adverse effects on agricultural productivity and performance of identified value chains. Thus in depth climate risk and vulnerability assessments should be done at project design stages of all proposed value chains and mitigation measures embedded in project design reports. In concurrence with the INDC and existing strategies and programmes, the COSOP proposes investments in mitigation and adaptation interventions such as: capacity building at national and local levels; strengthening early warning systems; climate smart agriculture; sustainable soil and water management; afforestation and reforestation; efficient energy use; climate proofed rural infrastructure; providing reliable and timely weather and climate information, investing in research and knowledge sharing and technology transfer; and climate finance. However, climate risks should be assessed on a case by case basis depending on the value chain. Table 3 outlines potential climate risks and their mitigation measures along proposed value chains.

Table 3: Environment and climate risks and mitigation measures along proposed value chains

Proposed value chain	Key risks	Risk assessment	Mitigation measures
Red meat (cattle, goats, sheep)	i) Production risks: drought and floods contribute to: poor quality and quantity of pasture and water, overgrazing and land degradation, deforestation to expand pasture land, malnutrition and mortality, and pests and disease outbreaks.	Medium	i) Monitor stocking and provide recommendations for carrying capacity to control overstocking, overgrazing, deforestation and land degradation. ii) Improved climate smart fodder production, storage and feeding systems (e.g. hay making, supplements, right feed quantities etc.). iii) Cattle fairs to sell cattle as a drought coping mechanism. v) Improve availability of water (good quality and quantity) e.g. multipurpose boreholes, solar pumps for boreholes, dams) and water conservation measures e.g. water harvesting. v) Good animal husbandry and animal health management. vii) Awareness creation and provision of sufficient extension services. viii) Farmer training e.g. through field schools or demo sites. ix) Refrigeration and cold storage to protect against heat waves and humidity. x) Re afforestation using leguminous shrubs that can serve as forage for animals e.g. Leucaena leucocephala and Moringa oleifera.
	ii) Greenhouse gas emissions (methane, carbon dioxide and nitrous oxide)		i) Climate smart forage production and feeding regimes. ii) Sustainable manure use and management. iii) Use of improved breeds iv) Improved systems to monitor GHGs e.g. through climate finance i.e. GCF. v) Learning and information exchange from ongoing initiatives e.g. ILRI
	iii) Processing facilities e.g. slaughter houses, factories (leather, meat products etc.) risks: effluent discharge into water bodies, air pollution from industries, high energy and water consumption, food contamination risks (e.g. brucellosis, chemicals, heavy metals etc.)		i) Environmental Impact Assessment and development of an Environment and social management plan (ESMP) to manage the risks. ii) Incentives for energy and water use efficiency, use of renewable energy (biogas and solar), water saving technologies. iii) Development or observance of food safety standards to control contamination. iv) Quality control and high standards of hygiene especially in slaughter houses.
Cassava[38]	i) Production risks: Susceptibility to drought related stress leading to low productivity, post-harvest losses due to e.g. heat waves, floods or drought, food safety concerns due to cyanide and aflatoxin poisoning, pest and disease outbreaks e.g. due to flooding.	Medium	i) Improved and drought tolerant varieties. ii) Improved/high yielding varieties. iii) Climate smart post-harvest and storage technologies. iv) Increase multiplication of drought resistant varieties. v) Integrated pest management practices. vi) Climate smart agricultural practices e.g. conservation agriculture, agroforestry etc. vii) Small-scale irrigation technologies e.g. drip and sprinkler.
	ii) Processing risks: Water and energy use efficiency during processing Effluent discharge from industries into water bodies		i) Use of water efficient/saving technologies and renewable energy (e.g. biogas and solar). ii) Water harvesting.

[38] World Bank (2015). Mozambique: agricultural sector risk prioritization. World Bank Group.

Horticulture[39]	i) Limited water supply during drought, thus low productivity. ii) Destruction of crops during floods. iii) Poor water use efficiency or lack of water saving or collection technologies e.g. during floods/rains. iv) High temperatures and rainfall exacerbate pest and disease outbreaks. v) Post-harvest losses e.g. due to flooding or very high temperatures. vi) Food safety issues – chemical and heavy metal residues.	Medium	i) Small-scale irrigation technologies e.g. drip or sprinkler. ii) Climate smart approaches such as shade cloth, conservation agriculture, integrated pest management. iii) Breeding and multiplication of high yielding and drought tolerant varieties. iv) Construction of mini-dams to control floods v) Water harvesting e.g. tanks, troughs, dams. vi) Cold storage to control post-harvest losses vii) Development or observance of food safety guidelines for the sector.
Cotton[40]	i) Low yield due to limited water availability during drought and high temperatures. ii) Low soil fertility and land degradation due to floods. iii) Pests and disease outbreaks due to drought or floods. iv) High cost of water and energy use during processing in ginneries.		i) Conservation agriculture and climate smart practices to manage soil fertility. ii) Water harvesting and water conservation techniques. iii) Integrated pest and disease management interventions. iv) Design specific weather zoning maps for cotton areas using spatial and weather data. v) Inclusion of cereal and legume crops to support promotion of good agricultural practices.
Inland aquaculture	i) Potential of stock losses due to flooding. ii) Pollution or eutrophication of water bodies through effluent discharge from ponds or commercial farms and processing facilities. iii) Unauthorised water abstraction and diversion from natural water bodies, thereby limiting water use by other users. iv) Cage culture could result in environmental pollution and disease outbreaks (e.g. white spot disease in Shrimp). v) Poor water quality and sedimentation due to flooding. vi) Inefficient use of water and electricity for intensive aquaculture. vii) Disease outbreaks due to flooding or excess heat. viii) Poor aquaculture zoning/suitability mapping.	Medium	i) Building trenches along ponds to divert excess water during flooding into dry ponds or reservoirs to store excess water. ii) Integrate aquaculture effluent into the crop system as fertilizer. iii) Encourage the strengthening of water user associations and allocation of water permits to users by the Water ministry. iv) Develop or strengthen cage culture guidelines and protocols and demonstrate best practices. Undertake EIA and develop an Environment and Social Management Plan to inform interventions. v) Regularly monitor water quality based on established standards. vii) Invest in water saving techniques and renewable energy. viii) Aquatic animal health surveillance system – training, upgrading existing facilities. ix) Develop aquaculture suitability maps based on spatial, weather and water availability data. x) Explore the potential for climate smart aquaculture especially for commercial farms.
Poultry keeping[15]	i) High temperatures and flooding can limit growth and productivity especially of the parent stock. ii) Disease outbreaks due to flooding or high temperatures. iii) Water and energy use inefficiency and effluent discharge in poultry feed and input processing industries.	Medium	i) Use recommended building material to ensure ideal housing conditions for optimal production. ii) Sound poultry husbandry and disease monitoring, diagnosis and disease control systems. iii) Use of water efficient technologies and renewable energy (solar or biogas), EIA for industries and ESMP if needed.
Cashew nuts[41]	i) Crop losses due to flooding, extended drought and cyclones. ii) Burning of vegetation to clear land for planting leading to loss of soil organic matter leading to degradation during flooding.	Medium	i) Provide sufficient, accurate and timely weather information and advisory services to farmers. ii) Conservation agriculture to control burning. iii) Substitute tall-growing trees with short or half-trunk trees which are less likely to be destroyed by cyclones. iv) Nursery establishment and replanting of trees and nursery e

[39] PROSUL (2016). A Thematic Study on climate change and adaptation responses for horticulture, cassava and red meat value chains in southern Mozambique. University of Cape Town, South Africa.
[40] World Bank (2010). Mozambique: cotton supply chain rapid risk assessment. World Bank Group.
[41] African Cashew Initiative (ACI) (2010). Analysis of the cashew nut value chain in Mozambique. ACI.

	iii) Old trees have low genetic potential to adapt well to extreme weather event e.g. floods. iv) Pests and disease outbreaks.		v) Integrated crop and pest management (ICPM), intercropping, diversification. vi) Floods control e.g. through trenches or fallows.
Potatoes (orange flesh sweet potato)[42]	i) Susceptibility of the vines to drought leading to crop loss. ii) High susceptibility to pests and diseases. iii) Contamination due to post-harvest weather related challenges e.g. during floods.	Medium	i) Multiplication and distribution of drought tolerant varieties. ii) Use of irrigation and water conservation techniques to contain extreme drought. iii) Planting pest and disease resistant varieties or practice IPM. iv) Modifying or alternating the cropping system to deal with extreme weather events. v) Appropriate post-harvest handling and storage to minimize contamination.
Sesame	i) High susceptibility to flooding leading to crop loss. ii) Susceptibility to pests and diseases iii) Contamination during storage as a result of high temperatures or humidity.	Medium	i) Floods control e.g. through trenches or fallows. ii) IPM to control pests and diseases. iii) Appropriate post-harvest drying and storage technologies
Crosscutting risks across value chains	i) Low investment in research e.g. on plant genetics and varieties, disease management. ii) Weak early warning systems, weather and climate information for farmers. iii) Low awareness of climate change and adaptation measures among farmers and extension agents, as well as value chain actors. iv) Limited investment in spatial and weather based zoning and planning within value chains. v) Policy limitations and unclear implementation strategies in some value chains e.g. sesame, cotton, poultry. vii) Food contamination at post-harvest or processing levels. viii) Very limited risk transfer mechanisms from the private sector. ix) Low investment in climate smart soil and water management techniques or practices. x) Social risks such as poverty, conflicts and gender inequalities		i) Specialized research on appropriate climate adaptable breeds/varieties. ii) Development or strengthening early warning systems and weather/climate information collection and analysis to provide farmers with sound, accurate, and timely information as well as advisory services. iii) Sufficient capacity building and extension provision with that include messages on climate resilience and sound environmental management. iv) Develop specific climate change informed zoning maps key value chains using satellite and other digital applications. v) Policy dialogues to develop or review policies and/or strategies for affected value chains. vi) Strengthening food safety standards and institutions implementing them to control contamination. vii) Support the development of weather based insurance products for farmers by the private sector. viii) Promote climate smart agriculture, water conservation and harvesting, and renewable energy (biogas, solar). ix) The ESMP to highlight how social risks will be mitigated, including ensuring free, prior and informed consent (FPIC) from communities in all projects.

[42] Jenkins, M., Shanks, C.B., and Houghtaling, B. (2015). Orange fleshed sweet potato succeses and remaining challenges of the introduction of a nutritionally superior staple crop in Mozambique. Food and Nutrition Bulletin 2015, vol 36(3):327-353.

Annex 1.1. Guiding Questions for Environment, social and Climate Risk Screening

IFAD classifies all projects into one of three environmental and social categories (A, B or C) and one of three climate risk classification (high, moderate and low). Where IFAD is jointly financing a project with other Agencies, IFAD will cooperate with the partner agency and agree on a common approach for the assessment and the categorisation of the project.

Determination of the category and classification will also depend on the national requirements and the existing national capacity to promote and implement environmental and social mitigation measures. The determination is informed by an existing assessments of national frameworks and capacities.

A positive response to any question between 1 and 20 will categorise the project as A. Similarly, a positive response to question 21 to 40 will categorise the project as B. In case all answer are negative, the project will be categorised as C.

This list of questions can be used at different stages of the project design and should be used in conjunction with the respective Guidance statements.

The checklists for Environmental/Social and climate risks will:

- Initially be filled in during concept development to help guide in the identification of opportunities and possible risks and activities that will need to be considered in the project design;
- Be attached to the SECAP review note;
- Be reviewed during project design phases and updated as required.

Project Title:			
IFAD Project No.		***Version of checklist***	***1***
Country:	***MOZAMBIQUE***	***Date of this version:***	***07/08/2017***
Checklist prepared by (Name, Title, and Institution)	***EDITH KIRUMBA ENVIRONMENT AND CLIMATE OFFICER – ECD/ESA, IFAD***		

In completing the checklist both short- and long-term impacts shall be considered. This list of questions can be used at different stages of the project cycle and should be used in conjunction with the respective guidance statements. Capitalize on information based on reports and field visits during design. The details of the elaboration on issues that arise as a result of screening should be clearly articulated in the SECAP review note (include hyperlink).

Question	**Yes/No/NA**	**Comments/explanation**
Category A – the following may have significant and often irreversible or not readily remedied adverse environmental and/or social implications**.**		
Project Location		
1. Will the project develop (GS1) any wetlands?	NO	
2. Would the project potentially cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. Conversion of more than 50ha of natural forest, loss of habitat, erosion/ other form of land degradation, fragmentation, hydrological changes)? (GS 1,2,5)	NO	
3. Does the proposed project target area include protected areas and their buffer zones, ecologically sensitive areas, coral reefs, mangroves swamps, small island ecosystems; areas of global/national significance for biodiversity conservation and/or biodiversity-rich area; habitats depended on by endangered species? (GS1)	NO	
Natural resource management		
4. Will the project lead to unsustainable NRM practices (fisheries, forestry, livestock) or/and result in exceeding	NO	

carrying capacity?(GS 4,5,6)		
5. Does the project involve fisheries development in situations where little up-to-date information exists on stocks and sustainable yield? (GS4)	NO	
6. Does the project pose a risk of introducing invasive species? (GS1)	NO	
7. Does the project include manufacture and transportation of hazardous and toxic materials which may affect the environment? (GS2)	NO	
Water		
8. Does the project involve large-scale irrigation schemes (GS7) rehabilitation/ development (above 100 ha per scheme)?	N/A	
9. Does the project involve significant extraction (GS7) of ground water (above recharge capacity)?	NO	
10. Does the project include water-based (ground or surface) development (GS7) where it is believed that significant depletion due to climate change or overutilization has occurred?	NO	
11. Does the project involve significant extraction or diversion of surface water leaving the river flow below 20 per cent above environmental flow also taking into account downstream users (GN8)?	NO	
12. Does the project include drainage or correction of natural water (GS7) bodies (e.g. glacier lake drainage, river training)?	NO	
13. Does the project make use of wastewater (e.g. industrial, mining, sewage effluent)?	NO	
Infrastructure		
14. Does the project include construction/rehabilitation of roads (GS10) that entail the total area being cleared above 10per cent of private land?	NO	
15. Does the project include construction/rehabilitation of large-scale dam(s)/reservoir (more than 15m high, or 5-15 m high with a reservoir exceeding 3 million m^3) (GS8)?	NO	
Social		
16. Would the project result in economic displacement[43] (loss of assets or access to resources) or physical resettlement of more than 20 people or impacting more than 20per cent of an individual asset (GS13)?	NO	
17. Would the project result in conversion and/or loss of physical cultural resources (GS9)?	NO	
18. Will the project have significant social adverse impacts (affecting access to and/use rights to land, access to potable water and water for other uses) on local communities (including Indigenous People) or other project-affected parties? (GS 13)	NO	
19. Will the project result in significant use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns? (GS 14)	NO	
Rural Finance		
20. Does the project support any of the above (Q1 to 19) through the provision of a line of credit to Financial Service Providers? (GS12)	NO	
Category B – the following may have some adverse environmental and/or social implications which can be readily remedied.		
Location		

[43] Economic displacement implies the loss of land, assets, access to assets, income sources or means of livelihoods (Guidance Statement 13)

21. Does the project involve agricultural intensification and/or expansion of cropping area in non-sensitive areas (GS?)?	YES	The COSOP has proposed investments into animal traction to intensify agriculture and boost food security.
Natural resource management		
22. Does the project involve land use changes (agricultural intensification and/or expansion of the cropping area) and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (GS1, 2 and 12)	NO	
23. Will the project result in increased use of agrochemicals (GS2) which may affect the natural environment/human health (GS14)?	NO	
24. Do the project activities include rangeland and livestock development? (GS6)	YES	The COSOP proposes investments in the development of the red meat and poultry value chains.
25. Does the project involve fisheries where there is information on sustainable yield? Is there any risk of overfishing, habitat damage and knowledge of fishing zones and seasons? (GS4)	YES	The COSOP proposes inland aquaculture value chain development. However, the investment is unlikely to contribute to habitat damage. Overfishing is likely.
26. Will the project activities include aquaculture and/or agriculture in newly introduced or intensively practised areas? Do project activities include conversion of wetlands and clearing of coastal vegetation, change in hydrology or introduction of exotic species? (GS4)	YES	Aquaculture will be introduced in new areas in land. Commercial farms engaged by the project may practice intensive aquaculture.
27. Do the project activities include natural resources-based value chain development? (GS 1, 6, 12)	YES	The project will have a value chain approach to development of various crops i.e. cotton, cashew nuts, cassava, sesame etc.
28. Does the project increase the need of fuelwood or fossil energy?	NO	
Water		
29. Do the project activities include watershed management or rehabilitation?	YES	The COSOP will rehabilitate and restore degraded water catchments and reservoirs.
30. Does the project include large-scale soil and water conservation measures? (GS 1 and 5)	YES	Soil and water conservation are a core component of the COSOP.
Infrastructure		
31. Does the project include small-scale irrigation and drainage projects (GS7 and 8), and water impoundment including small dams (except in wetlands)?	YES	The COSOP intends to invest in small-scale irrigation systems e.g. drip and sprinkler methods.
32. Does the project include small and micro enterprise development sub-projects? (GS12 and 13)	YES	The COSOP intends to support micro and small businesses, especially thus run by women and the youth.
33. Does the project include development of agro-processing facilities (GS2, 6, 12)?	YES	The COSOP will provide support e.g. through training and small capital investments to organised groups.
34. Will the construction or operation of the project cause an increase in traffic on rural roads? (GS10)	NO	
Social		
35. Would any of the project activities have minor adverse impacts on physical cultural resources? (GS9)	NO	
36. Would the project have low probability to have physical resettlement or economic displacement? (GS13)	NO	
37. Will the project require a migrant workforce during construction? (GS13)	NO	
38. Will the project require seasonal workers to plant and/or harvest produce? (GS13)	YES	Smallholder farmers or commercial farmers involved in the COSOP projects may hire labourers during permanently or during the peak

		seasons
39. Would the project result short term public health and safety concerns (GS14)	YES	There is likelihood of disease outbreaks such as malaria outbreak due to stagnated water. Disease outbreaks as a result of poor food safety and handling may also occur, including cholera due to water contamination.
Rural Finance		
40. Does the project support any of the above (Q21 to 39) through the provision of a line of credit to Financial Service Providers? (GS12)	YES	The project will explore ways to ensure farmers receive credit.

* "Sensitive areas" include: protected areas (national parks, wildlife/nature reserves, biosphere reserves); areas of global significance for biodiversity conservation; habitats depended on by endangered species; natural forests; wetlands; coastal ecosystems, including coral reefs and mangrove swamps; small island ecosystems; areas most vulnerable to climate change and variability; lands highly susceptible to landslides, erosion and other forms of land degradation and areas that include physical cultural resources (of historical, religious, archaeological or other cultural significance).

Guidance for categorisation:

"Yes" response to any questions between 1-20	Environmental and social category is A	ESIA or ESMF (full or specific) is required depending on availability of information Also some specific questions would require the below specific actions: • Yes to Q16- A RAP or RAF is required depending on availability of information • Yes to Q17- A Physical Cultural Resources Management Plan is required that includes provisions for managing chance finds at implementation • Yes to Q18- FPIC should be obtained/ FPIC implementation plan is required depending on whether the affected communities are identifiable. In instances where indigenous people are affected an IPP is required. A Social Impact Assessment is required. • Yes to Q7 and Q19- A Pest Management Plan is required
''No'' response to 1-20 and "Yes" response to any questions between 21-40	Environmental and social category is B	An Environmental and Social Analysis to develop an ESMP is required.
"No" response to all questions between 1-40	Environmental and social category is C	No further analysis is required

In case projects falls under both category A and B, the highest category will be taken as reference. The determination of the project category and classification will depend on the the magnitude of impacts would depend on the scale of such activities, a cautious approach to the concern of cumulative impacts is considered essential. In such cases, the necessary environmental and social analysis and associated budget should be incorporated into project design. Such projects may be considered for Category B.

Determining the environmental and social category A including the extent of assessments and studies to be conducted, will also take into account available information i.e recent studies and assessments, including on other initiatives in the country, to the extent these are relevant to the proposed project.

Declassification (from A to B or from B to C) may also be possible in case negative externalities are being addressed by other projects or activities implemented by third parties.

Guiding Questions for Climate Risk Screening

Question	Yes	No	Additional Explanation of 'Yes' response
Is the target group of the project dependent on climate-sensitive natural resources (such as drought-prone crops, rainwater-fed agricultural plots, migratory fish stocks)?	X		Most communities in the Mozambique are reliant on rain f fed agriculture. In the coastal areas, fish is the main source of protein, while in the interior some communities consider maize a staple.
Has the project area been subject to extreme weather events in the past, such as flooding, drought, tropical storms, or heat waves?	X		Drought and flooding are the primary extreme weather events in some project sites. Some areas also experience tropical storms and heat waves.
Could changes in temperature, rainfall, or extreme weather affect the project impact, sustainability or cost over its lifetime?	X		If sustainable water management and availability approaches are not integrated into the project, the sustainability of the project could be threatened.
Will climate variability likely affect agricultural productivity within the project (crops/ livestock/fisheries) or incidence of pests and diseases?	X		Most of the proposed value chains are likely to be affected by climate variability if sufficient mitigation measures are not put in place.
Would weather-related risks or climatic extremes adversely impact upon key stages of identified value chains in the project (from production to markets)?	x		Drought, floods and heat waves are likely to contribute adversely to low productivity, pests and disease outbreaks, poor quality of commodities thus low prices, and contamination e.g. cyanide poisoning in cassava or aflatoxin in maize.
Does the project have potential to integrate climate resilience measures without extensive additional costs (such as applying improved building codes; expanding capacity building programmes; or including climate risk issues in policy processes)	X		The COSOP will invest in sustainable and climate smart land resource management practices e.g. conservation agriculture, efficient water management, and early warning systems to communicate weather and climate information to farmers.
Would the project benefit from a more detailed climate risk and vulnerability analysis to identify the most vulnerable rural population, improve targeting and identify additional complementary investment actions to manage climate risks?	X		This is necessary during the design phases of projects and before implementation commences

Country at a Glance

	1990	2000	2010	2016
World view				
Population, total (millions)	13.25	18.07	24.22	28.83
Population growth (annual %)	1.4	2.7	2.9	2.9
Surface area (sq. km) (thousands)	799.4	799.4	799.4	799.4
Population density (people per sq. km of land area)	16.8	23	30.8	36.7
Poverty headcount ratio at national poverty lines (% of population)	..	54.1	54.7	..
Poverty headcount ratio at $1.90 a day (2011 PPP) (% of population)	..	80.4	68.7	..
GNI, Atlas method (current US$) (billions)	2.4	5.03	11.23	13.79
GNI per capita, Atlas method (current US$)	180	280	460	480
GNI, PPP (current international $) (billions)	3.12	7.73	21.05	34.28
GNI per capita, PPP (current international $)	240	430	870	1,190
People				
Income share held by lowest 20%	..	5.4	5.2	..
Life expectancy at birth, total (years)	43	49	53	55
Fertility rate, total (births per woman)	6.2	5.8	5.6	5.3
Adolescent fertility rate (births per 1,000 women ages 15-19)	185	185	162	137
Contraceptive prevalence, any methods (% of women ages 15-49)	..	26	12	..
Births attended by skilled health staff (% of total)	..	48	54	..
Mortality rate, under-5 (per 1,000 live births)	240	171	103	79
Prevalence of underweight, weight for age (% of children under 5)	..	23	15.6	..
Immunization, measles (% of children ages 12-23 months)	59	71	82	85
Primary completion rate, total (% of relevant age group)	27	16	56	48
School enrollment, primary (% gross)	63.3	73.7	108.9	105.8
School enrollment, secondary (% gross)	7	6	24	32
School enrollment, primary and secondary (gross), gender parity index (GPI)	1	1	1	1
Prevalence of HIV, total (% of population ages 15-49)	1.6	7.8	11.2	10.5
Environment				
Forest area (sq. km) (thousands)	433.8	411.9	389.7	379.4
Terrestrial and marine protected areas (% of total territorial area)	7.9	7.9	..	10.9
Annual freshwater withdrawals, total (% of internal resources)	0.6	0.9	..	0.9
Improved water source (% of population with access)	35	41	49	51
Improved sanitation facilities (% of population with access)	10	14	19	21
Urban population growth (annual %)	7.4	3.3	3.6	3.8
Energy use (kg of oil equivalent per capita)	447	397	411	428
CO2 emissions (metric tons per capita)	0.08	0.07	0.11	0.15
Electric power consumption (kWh per capita)	41	123	440	463
Economy				
GDP (current US$) (billions)	2.51	5.02	10.15	11.01
GDP growth (annual %)	1	1.7	6.7	3.8
Inflation, GDP deflator (annual %)	34.1	10.9	7.6	12.2
Agriculture, value added (% of GDP)	37	23	30	25
Industry, value added (% of GDP)	18	23	19	22
Services, etc., value added (% of GDP)	44	54	52	54
Exports of goods and services (% of GDP)	8	13	32	35
Imports of goods and services (% of GDP)	36	40	46	77
Gross capital formation (% of GDP)	22	33	18	43
Revenue, excluding grants (% of GDP)	..	..	17.9	25.7
Net lending (+) / net borrowing (-) (% of GDP)	..	..	-3.5	..
States and markets				
Time required to start a business (days)	..	168	19	19
Domestic credit provided by financial sector (% of GDP)	15.6	9.3	23.2	44.3
Tax revenue (% of GDP)	..	..	16.1	23.1
Military expenditure (% of GDP)	3.4	1.1	1	1
Mobile cellular subscriptions (per 100 people)	0	0.3	30.1	74.2
Individuals using the Internet (% of population)	0	0.1	4.2	9
High-technology exports (% of manufactured exports)	..	9	1	12
Overall level of statistical capacity (scale 0 - 100)	..	..	72	71
Global links				
Merchandise trade (% of GDP)	40	30	75	79
Net barter terms of trade index (2000 = 100)	175	100	106	91
External debt stocks, total (DOD, current US$) (millions)	4,581	5,613	4,130	10,056
Total debt service (% of exports of goods, services and primary income)	22.2	9.4	3.3	9.5
Net migration (thousands)	650	38	-25	..
Personal remittances, received (current US$) (millions)	70	37	116	198
Foreign direct investment, net inflows (BoP, current US$) (millions)	9	139	1,258	3,868
Net official development assistance received (current US$) (millions)	997.5	907.4	1,943.1	1,815.0

Source: World Development Indicators database

Figures in blue refer to periods other than those specified.

Concept Notes

Project Concept Note 1: Small-Scale Aquaculture Promotion Project (SSAPP)

Lead Adviser: Mr Richard Abila, PTA

Project ID Number: **2000001979**

A. Strategic context and rationale for IFAD involvement, commitment and partnership

This concept note has been prepared by the Ministry Of The Sea, Inland Waters and Fisheries in Mozambique.

Global statistics show that the growth in fishery output is about 3.2% per year, which is twice the annual population growth. Aquaculture production has the highest growth rate, with about 6.5% annually. It is estimated that by 2030 aquaculture will account for over 60% of the world's fish production for human consumption, which currently stands at about 50%. Thus, it is expected that the trend of the last years should continue in the coming decades, with aquaculture contributing more for meeting the growing demand for fish worldwide. Endowed with favourable geophysical and environmental conditions, Mozambique has made a decision to increase fish production through the development of commercial aquaculture. Fish is an important source of protein in the country, with the demand expected to grow substantially in the next decade, given a population increase of nearly 3.5%.

The development of aquaculture in Mozambique plays an important role in the socio-economic development of the country: with a focus on nutrition to providing cheap protein, improving the population's diet, creating jobs, generating income and promoting regional development. The potential for aquaculture development in Mozambique is enormous. There is a favourable environment for investment, climatic conditions are favourable (tropical and sub-tropical climate), it is unpolluted, population pressure is low, and there are extensive resources with a potential of 33 000 ha of land suitable for coastal aquaculture (Relatório das áreas potenciais para aquaculture marinha, 2011) and the existence of wild native species which can potentially be farmed such as giant tiger prawn, Indian white, kuruma prawn, etc, and tilapia.

The culture of freshwater species such as tilapia has existed for many decades (since the 1950s), whereas the cultivation of marine species has emerged more recently. The aquaculture industry in 2003 consisted of commercial farms producing marine shrimp and seaweed, and artisanal farms producing tilapia. Aquaculture practices range from extensive farming (tilapia and seaweeds) with few inputs and modest output, to semi-intensive farming (shrimp) with high inputs and high output.

Direct employment in the fisheries and aquaculture sector is estimated to be 95 000 (Ministry of Fisheries, 2004; Omar, 2005), of whom 90 percent are in the artisanal sector. It is estimated that about 1 000 people are employed on the commercial farms on a full-time basis. Around 5 500 people are involved in subsistence aquaculture as a part-time activity, in tilapia extensive farming and in seaweed farming. Other activities include agriculture, including cash crops and livestock. The vast majority, are illiterate or have a primary education, whilst a small number, mainly those in administrative areas, have a secondary education. The commercial farms employ overseas workers in technical and managerial positions. In seaweed farming 80 percent of the producers are women, whilst on the commercial farms women make up approximately 30 percent of the workers employed in processing.

The 2007 census of artisanal fishing estimated that there are about 334,000 professionals who depend directly or indirectly on artisanal fishing, with 280,000 artisanal fishermen. On the other hand, industrial fishing involves about 4500 professionals (Fisheries Master Plan 2010-2019)

Given the scenario of low investment in aquaculture and a decrease in production, the sector designed and implemented the Plan of Action for Massification of Fish Farming (PAMP-2011-2014), which allowed for greater dissemination and expansion of aquaculture activity at the national level. Despite Government efforts, the development of aquaculture has not experienced a desired growth, mainly due to insufficient feed and fingerlings, limited investments for research and development, and poor access to credit and extension services.

Destructive fishing techniques and overfishing contribute to declining fish stock and degradation of marine and inland aquaculture ecosystems[44]. Climate change also poses a significant challenge to the fisheries sector because Mozambique is highly vulnerable to extreme weather events such as cyclones, floods and storms, especially along the coastline. There is therefore need to assist fishing communities to adapt and mitigate the effects of climate change, as well as building the capacity of farmers and key actors to better manage the environment and natural resource base that sustains the fishing industry. Through its Intended Nationally Determined Contribution (INDC), the Government of Mozambique seeks to improve climate resilience in the fisheries sector, and to enhance the sustainable management of water resources, and strengthening early warning systems among other measures[45].

To address the problem of low aquaculture production, the Aquaculture Research Center (CEPAQ) was created on the one hand, which will be the platform for the establishment of an aquaculture industry in Mozambique, which will produce genetically improved breeding and fingerlings with an installed capacity of about 30 million fingerlings per year. The center will also train and train staff to provide technical assistance and extension services. On the other hand, in order to address the problem of food shortages, the Government exempted taxes and customs duties on the import of raw material for the production of feed from the SADC region.

In order to bring a new approach, through lessons learned from the implementation of sectoral aquaculture development plans and programs, there was a need to design the Aquaculture Development Action Plan (PADA), which aims to boost the development of commercial aquaculture in the medium-long term.

Production models and the intensity of aquaculture production in Mozambique are as follows:

Freshwater aquaculture

- **Subsistence aquaculture**: The main cultured species is tilapia (Nile Tilapia (Oreochromis niloticus), Tilapia Mossambicus (Oreochromis mossambicus), Tilapia (Oreochromis shiranus), Tilapia (Oreochromis karongae), Tilapia rendalli (Tilapia rendalli) and other species such as carp (Cyprinus carpio) and catfish (Clarias gariepinus) in a mixed-sex culture. It is practiced in earthen ponds, ranging in size from small backyard ponds (200-400 m2) to larger ponds (1.5 ha). Pond culture of freshwater fish is the least developed technique in Mozambique. The culture system is extensive; Formulated feed for fish is not readily available and fish are fed on agriculture by-products such as rice, maize, millet and sorghum bran and cassava leaves. As a fertilizer farmers use cow and other livestock manure depending on availability. Yields are low, estimated at 0.8 tonnes/ha/year. Cropping time is from six months to a year, depending on the feeding regime.
- **Commercial aquaculture**: Commercial aquaculture consists of cage culture operation in the provinces of Tete and Inhambane. The seed supply for cage culture depends on the farm production. Feeds are produced on the farm from

[44] USAID (2015). The importance of wild fisheries for local food security: Mozambique. USAID.

[45] Government of Mozambique (2015). Intended Nationally Determined Contribution (INDC) of Mozambique to the United Nations Framework Convention on Climate Change (UNFCCC). Ministry of Land, Environment and Rural Development, Republic of Mozambique.

locally available ingredients and imported concentrates. Challenges include the lack of inputs, fish seed, feed technology and feed formulation.

Coastal aquaculture

- **Subsistence aquaculture**: In the coastal areas of Cabo Delgado, Nampula and Zambézia local communities are involved in the cultivation of tilapia and seaweed farming. Wild species that come with the tides that enter the open tanks, having gates that are closed to ensure captivity, are also grown.
- **Commercial aquaculture:** Commercial coastal aquaculture consists of shrimp culture, royal croacker and seaweed (in the past) in the provinces of Cabo Delgado, Nampula, Zambézia and Sofala. The commercial marine aquaculture industry went bankrupt. There is an attempt to commercially produce tilapia in Zambézia.

This concept note serves as a basis for the design of a small-scale aquaculture project in inland and marine waters, in an innovative approach, aimed at commercial aquaculture development, i.e. contributing to the rise of small subsistence fish farmers to become commercial fish farmers, with block production, based on "centralities"(sites identified by the Sector whose geographical location confers comparative advantages that enable the sustainable development of the aquaculture value chain), to be considered in the next cycle of cooperation between the Republic of Mozambique and the International Fund for Agricultural Development (IFAD).

B. Possible geographic area of intervention and target groups

The Ministry of the Sea, Inland Waters and Fisheries will have overall responsibility for guiding the project formulation and implementation process. Within MIMAIP, IDEPA will assume responsibility for coordinating project activities through a Project Coordination Unit (PCU) which will manage the day-to-day activities of the project building on previous experience with managing and implementing IFAD co-financed projects. The Provincial Directorates of the Sea, Inland Waters and Fisheries (DPMAIPs) will be responsible for the coordination, implementation and progress of the project at local level.

The potential area of intervention comprises 21 districts of recognized potential in the provinces of Cabo Delgado, Niassa and Nampula. However, a strategic environmental assessment study is recommended as part of the selection of concrete sites where interventions will take place. The potential takes into account the existence of land (or water bodies) with appropriate physical and environmental conditions for the practice of aquaculture, as well as the existence of people who have indicated an interest in aquaculture production. The selection of this area also takes into account the fact that the Government of Mozambique is about to start a project to support aquaculture, which will take place in the central region of Mozambique (covering the provinces of Manica, Tete and Zambézia), with the support of the Islamic Development Bank (IDB). There will be opportunities for collaboration and complementarity between the two projects and other aquaculture development initiatives in the country. The following map shows the potential locations for the project.

Mozambique

Small-Scale Aquacuture Promotion Project (SSAPP)

Concept note

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.

IFAD *Map compiled by IFAD* | 19-01-2018

The main target group– with a **focus on women and youth** -***Smallholder subsistence & semi-subsistence producers****:* includes poor rural households engaged in both agriculture production and fisheries, which have limited access to land, inputs, credit, markets and market information. These producers are net producers of staple

crops, food insecure with no proper water and soil fertility management practices. They are under-covered by extension, and have a longer learning curve in the uptake of new technologies and approaches. They largely operate as individuals and are highly vulnerable and dependent on their farm produce. They have weak bargaining power, poor market linkages and no access to market information. These people will be supported to diversify their activities through viable investments in the aquaculture sub-sector, but as much as possible the intervention will also be used to enhance the activities they are already undertaking in order to maximize their livelihoods. The target group also includes ***Poor rural household (self-employed) entrepreneurs***: This category includes subsistence producers, engaged in various entrepreneurial incomes generating activities off-farm. They have limited access to finance, land, and live below the poverty line. In addition, they have insufficient production, depletion of food stocks, and have high risk exposure to rising food prices, thereby are food insecure, and exposed to acute malnutrition due to inadequate diet. They also have limited resilience to climatic shocks; therefore households are highly vulnerable, live off of farm produce, either by consuming, selling, or trading their agricultural labour. This is an important target group deserving promotion because of their potential for income and employment generation. The entrepreneurs are interested to expand their activities but have limited access to financial resources.**Medium-sized enterprises** which support the targeted communities, play a role in providing the inputs that are essential for aquaculture practice and may also be adding value to produce. The approach will be implemented in a context of promoting "centralities" with a focus based on aquaculture infrastructure as a starting point, i.e. the existence of fattening ponds, suppliers of quality fingerlings and certified fish feed, and postharvest handling, loss management and storage.. The identification of **lead or promoter fish farmers** for the development of well-planned and executed demonstration activities will serve as a basis for raising the interest of families in engaging in fish production activities and possibly other aquatic species. They are also likely to be the ones that support the establishment of formalised businesses with a group of fish farmers.

C. Justification and rationale

The total fish production in Mozambique in 2016 was 303.3 thousand tons, of which 302.2 thousand came from extractive fisheries and only 1.2 thousand from aquaculture. Although aquaculture production is still small, the activity has enormous potential to contribute to the increase in fish production, in order to meet the growing demand and an affordable source of animal protein, in a context in which the possibilities to increase in production from capture fisheries are limited because more fisheries are approaching the maximum sustainable catch levels.

For the reasons explained above, the Government of Mozambique (GoM) has in recent years given increasing priority to the promotion of commercial aquaculture. Despite the efforts made, the activity is still at an embryonic level. Key aquaculture development issues relate to; (i) hatcheries (poor availability and quality of genetic material, high investment requirements for import and quarantine of broodstock); (ii) fish feed (no national fish feed production, high cost of imported feed, no capacity for feed applied research/ trials; (iii) technical and institutional capacity (limited aquaculture skills among farmers, limited technical capacity of extension agencies); (iv) infrastructure (Poor and unreliable infrastructure e.g. roads, power supply, processing facilities); (v) financial services (small-scale farmers have no access to financial services; lack of appropriate financial packages for aquaculture etc.). To this end, in addition to the fact that the markets for production inputs are still underdeveloped, adequate responses must be found to the problems related to the lack of support infrastructures and the poor access to financial services for investments along the value chain. In addition, institutional capacity to support aquaculture activities needs to be strengthened.

With the support of IFAD, initiatives aimed at the development of aquaculture, in particular small-scale aquaculture, have been promoted through the Small-scale Aquaculture Promotion Project (ProAQUA) and, more recently, the Artisanal Fisheries

Promotion Project. The experience gained in the implementation of these (and other) interventions makes it possible to draw conclusions and lessons that will support the formulation of a project to promote the activity by supporting small family farmers. With this experience this places IFAD in a strong position to further develop these opportunities for the rural poor to participate in the value chain. The proposed project will increase fish production in the country and thus make an important contribution to raising the economic, food and nutritional security levels of Mozambican families.

As lessons learned, one can highlight the fact that communities demonstrate knowledge of captive fish production where there are project interventions. On the other hand it has been learned that the waste of the agricultural products could be used for the manufacture of artisanal produced feed. Although sometimes there is fish available from aquaculture production, due to the socio-cultural aspects, women and children still do not eat the fish which is only available to the head of the household. For an accelerated and sustainable development of aquaculture there is a need to provide aquaculture supplies first. In the same way to facilitate assistance to producers and thus to achieve good results, it is desirable that the development of the activity be done in ways where the production units are grouped and the producers organized around the associations

D. Key Project Objectives

Through aquaculture the project will support the diversification of activities carried out by families in rural areas. The engagement of families in aquaculture activities will allow them at the end of the production cycle to produce considerable quantities of fish that will be used partially for self-consumption, thus contributing to the improvement of the food diet, on the other hand, generates surpluses that will be marketed market allowing households to have regular access to a source of income that will be used to improve the living conditions of the household.

The **development goal** of the project is "*to improve the livelihoods of communities involved in aquaculture production activities*".

This will be achieved through the following **specific objectives**:

a) To increase incomes of the rural poor by integrating them into the value chain of aquaculture products; and

b) To increase the consumption of quality animal protein contributing to the reduction of malnutrition/stunting rates.

E. Components and activities

The project will comprise the following components and activities, which will be re-assessed and re-organized during detailed project design:

- **Component 1 - Improved access to aquaculture production inputs:** this will involve a range of instruments and activities to ensure the establishment and consolidation of a commercial input supply network at competitive prices. The activities to be considered include: the identification of interested companies, the dissemination of existing business opportunities, undertaking feasibility studies (including technical assistance to determine the economic viability of the enterprise) for the establishment of fingerlings production units (by suitability of fish type per agro ecological zone) and feed production lines and the provision of financing, in the form of matching grants, for the intended investments. The aim is to have at least one local producer of quality fingerlings and certified fish feed in each of the three Provinces. Component 1 is aimed primarily at ensuring sustainability through access to necessary input for fish farmers.
- **Component 2 - Support to small-scale aquaculture/enterprises:** here the planned activities include the following: (a) diagnostics for the selection of sites with the highest potential for aquaculture including access to water and tenured land and carry out strategic environmental; (b) actions for mobilization and participatory

planning of aquaculture enterprises; (c) demonstration of actions for farming fish and other aquatic species through actions that may include the opening of ponds or construction of floating cages, supply of fingerlings for stocking and feed for fattening fish, monitoring and training on natural resource management technologies; (d) assistance in the handling, processing and marketing of fish; and (e) training in business management, formation and strengthening of associative enterprises for producers operating on the basis of modern formalised cooperative principles.. In addition, this component will include resources for the rehabilitation and / or construction of support for climate-resilient infrastructure, namely earthworks for protection dikes, ramps and water inlet and drainage channels, access roads, electrification/solar powered mini grids, as well as the operation and maintenance of structures with embedded NRM. This will gradually increase the number of producers and production units per person in the same area in order to establish authentic and self-sufficient aquaculture complexes (aqua parks). Component 2 is focussed on ensuring that the target groups are taken through a comprehensive process to ensure access and learning to the resources they will need.

- **Component 3 - Access to Financial Services:** the intention is to improve the offer of services for investments along the value chain by the various stakeholders. The component will provide support to the informal and formal sectors through the expansion and strengthening of revolving savings and credit groups (ASCAs) and introduction of measures to facilitate the provision of financial services by formal financial sector institutions (banks and micro banks). The activities of the component include: (a) increasing the number of women and men participating in community-based financial services (ASCAs) and increasing their linkages with MFIs and formal sector financial institutions; (b) establish credit lines for financing the aquaculture value chain, including packages of financial support for production cycles and for other up and downstream activities; (c) introduce matching grants to boost private sector participation in supplying inputs where they do not exist, to increase the participation of women and to foster innovative initiatives in aquaculture activity.(**NB**: *Following the approval of the Rural Enterprise and Financing Project this component would be implemented and financed through REFP once fully operational. It is worth noting that PROPESCA has already had experience in delivering this aspect should REFP be delayed for some reason*).
- **Component 4 - Promotion of nutritional education:** because it is an initiative for producing food, the project will contribute to improving the food and nutritional security of Mozambican families in general. For the communities targeted by the project, in particular, nutrition education actions will be carried out together with the most critical groups of women of reproductive age and girls of school age as well as for aquaculture fish farmers to ensure that they understand issues of quality and nutritional value. The following activities will be supported: (a) sensitization of community leaders and community-based organizations, (b) nutrition education with women's groups; (C) nutrition education campaigns in schools; (d) nutrition education campaigns through community radios; (e) demonstration of vegetable gardens, storage and cooking.
- **Component 5 - Institutional capacity development and policy dialogue:** this component will strengthen the capacity of institutions involved in project implementation (licensing, research and extension, training, bio safety and hygienic quality) including local governments, in the planning and implementation of aquaculture development actions, including assistance to fish farmers. Manuals or practical guidelines will be elaborated, reproduced and widely distributed, accompanied by training of personnel of the institutions involved and the fish farmers themselves. The support will be extended to research centres and technical and vocational education centres that carry out work in the aquaculture sector. This component will also address needs related to the creation of a favourable legal and

regulatory framework for the development of small-scale aquaculture activities, which include legal issues related to access rights to land and water, environmental licensing, legal recognition of cooperatives, regulation affecting the authorization and operation of nurseries and fish feed factories, among others. Under this component, resources will be provided for the establishment of a project management unit to articulate with the implementing partners and effectively ensure the planning, monitoring and evaluation functions, contracting of goods, services and works of works and financial management.

Following is an indicative budget which will be refined during implementation along with that of the components and logframe.

Preliminary Budget		**Amount US$ millions**
Component 1 Improved access to aquaculture production inputs		7
Component 2: Support to small-scale aquaculture		30
Component 3: Access to Financial Services		Financed / implemented by REFP when fully operational
Component 4: Promotion of nutritional education		3
Component 5: Institutional capacity development and policy dialogue		10
TOTAL		**50**

F. Scaling up

Due to the size of the project, it is expected to serve as a reference for other projects in other provinces. From this project lessons and experiences can be drawn for the development of aquaculture in Mozambique.

G. Ownership, Harmonization and Alignment

The project is in line with the development objectives that advocate increasing the contribution of the sector to the food and nutritional security of the Mozambican population, while improving the living conditions of families engaged in the development of this type of activity. The project will be implemented under the guidance of the Ministry of the Sea, Inland Waters and Fisheries (MIMAIP). Project coordination will be entrusted to the National Institute for Fisheries and Aquaculture Development (IDEPA), which will be charged with leading the implementation of the project in a coordinated manner with all stakeholders through the establishment of a project coordination unit.

The project being proposed is in line with the Government's Five Year Plan (2015-2019), which advocates the promotion of employment, productivity and competitiveness through training of small-scale aquaculture producers, with the Fisheries Master Plan (2015-2019) which aims, inter alia, to improve the domestic supply of fish to cover part of the country's food deficit, and Action Plan for the Development of Aquaculture (PADA), which is in the process of being finalized. The intervention will also be aligned with national policies and strategies to promote rural development with a view to eradicating poverty levels and promoting well-being.

To address one of the problems of low aquaculture production, the Aquaculture Research Center (CEPAQ) was created, which will be the platform for the establishment of an aquaculture industry in Mozambique, which will produce genetically improved breeding and quality fingerlings. The center will also train and train staff to provide technical assistance and extension services.

The project will develop synergies and complement efforts under the ongoing

Inland aquaculture	i) Potential of stock losses due to flooding. ii) Pollution or eutrophication of water bodies through effluent discharge from ponds or commercial farms and processing facilities. iii) Unauthorised water abstraction and diversion from natural water bodies, thereby limiting water use by other users. iv) Cage culture could result in environmental pollution and disease outbreaks (e.g. white spot disease in Shrimp). v) Poor water quality and sedimentation due to flooding. vi) Inefficient use of water and electricity for intensive aquaculture. vii) Disease outbreaks due to flooding or excess heat. viii) Poor aquaculture zoning/suitability mapping.	Medium	i) Building trenches along ponds to divert excess water during flooding into dry ponds or reservoirs to store excess water. ii) Integrate aquaculture effluent into the crop system as fertilizer. iii) Encourage the strengthening of water user associations and allocation of water permits to users by the Water ministry. iv) Develop or strengthen cage culture guidelines and protocols and demonstrate best practices. Undertake EIA and develop an Environment and Social Management Plan to inform interventions. v) Regularly monitor water quality based on established standards. vii) Invest in water saving techniques and renewable energy. viii) Aquatic animal health surveillance system – training, upgrading existing facilities. ix) Develop aquaculture suitability maps based on spatial, weather and water availability data. x) Explore the potential for climate smart aquaculture especially for commercial farms.

aquaculture development initiatives, including through the Aquaculture and Climate Change Project (AquaCC, World Bank), the Aquaculture and Artisanal Inland Fisheries Project (PPAPAI) and other initiatives developed with the support of international cooperation partners, including other IFAD-supported projects in Mozambique related to the strengthening of agriculture extension services (PSP-ProNEA), promotion of rural markets (PROMER) and the new initiative to support enterprise development finance in rural areas.

H. Preliminary Environmental and Social category

The preliminary category is A. Depending on the actual focus and methods used during design the design of the Concept Notes this categorization may change.

Risks and mitigation measures include:

I. Preliminary Climate Risk classification

The preliminary classification of climate-related risks is considered high. The project will concentrate its activities on the promotion of aquaculture activities by using ponds on land or floating cages. The success of the activity is dependent on the availability of land and water, which are still abundant resources in Mozambique. However, the project may be affected by the occurrence of cyclical drought, flood, cyclone, sea level rise and salt water intrusion and steps should therefore be taken to avoid the selection of areas with a record of extremely adverse climatic events (following comprehensive vulnerability assessments) that could jeopardize the investments made by small-scale aquaculture producers or even jeopardize the physical integrity of practitioners.

In the case of natural phenomena, mitigation is quite difficult, but its effects can be minimized. To this end, the choice of appropriate sites should take into account available information on historical occurrences of climatic effects, current trends and future scenarios related to the subject. It is critical to ensure careful site selection, concentrating activities in the areas with high potential (e.g. adequate water supplies, suitable slope, good soils etc.). On the other hand, the implementation of projects in safe areas and the making of investments such as the construction of small dams and protective dams in certain zones could help the mitigation against probable temporary adverse situations. Proposed climate risk mitigation and adaptation measures should also be in line with Mozambique's INDC, and national climate adaptation and mitigation strategies.

J. Costs and financing

The project costs are estimated at USD 50 million over a five-year implementation period to be disbursed by IFAD. In order to avoid the already known problems of lack of counterpart funds, the financing of the project free of taxes, which normally corresponds to the contribution of the Government of Mozambique, should be negotiated with IFAD. The contribution of the beneficiaries and other entities involved in the implementation of the project will be established at the time of project design. If this exercise shows that the needs are greater than the amount indicated above, GoM and IFAD should seek partners interested in cofinancing to fill financial gap. The anticipated spread of the preliminary budget is represented in the table below.

Table XX:

Preliminary Budget	**%**	**Amount US$ millions**
Component 1 Improved access to aquaculture production inputs	14	7
Component 2: Support to small-scale aquaculture	60	30
Component 3: Access to Financial Services		Financed / implemented by REFP when fully operational
Component 4: Promotion of nutritional education	6	3
Component 5: Institutional capacity development and policy dialogue	20	10
TOTAL	100	**50**

The flow of funds and arrangements for the disbursement of funds under the project will be established taking into account the systems already in use in the public sector of the country. This means the accounts to receive the financial resources allocated to the project should be opened at the central bank and these will flow through the Single Treasury Account. In order to allow for the establishment of swift and effective mechanisms for allocating funds for the implementation of e-SISTAFE, an evaluation of the experiences accumulated by ongoing projects should be made during the project design and appropriate measures agreed between GoM and IFAD. Although ongoing projects are using the standards and procedures in force in the public sector, constraints have also been observed in regard to procurement plans, which delays implementation. An assessment of the situation should therefore be made at the time of project design and appropriate mitigations agreed.

K. Organization and management

The project will be implemented within the institutional framework of the Government of Mozambique. The Ministry of the Sea, Inland Waters and Fisheries will have overall responsibility for guiding the project formulation and implementation process. Within MIMAIP, IDEPA will assume responsibility for coordinating project activities through a Project Coordination Unit (PCU) that will manage the day-to-day activities of the project building on previous experience with managing and implementing IFAD co-financed projects. The Provincial Directorates of the Sea, Inland Waters and Fisheries (DPMAIPs) will be responsible for the coordination, implementation and progress of the project at local level. IDEPA will sign a Memorandum of Understanding (MoU) with other government agencies involved in carrying out specific activities foreseen in the project design, as well as with the district governments involved in project implementation. The

MoU will ensure collaboration between the various parties involved in the effect implementation of the project.

The PCU will be responsible for overall coordination of project implementation, including the preparation of annual activity and budget plans, procurement management, progress reporting, monitoring and evaluation, and financial management. The strategic orientation of the project, such as knowledge management, communication and visibility, will be under the responsibility of MIMAIP / IDEPA. The core team will comprise a Project Coordinator, a M&E Officer, a Procurement Officer and a Financial Manager and an Accountant. This team will be complemented by two technical assistants distributed as follows: an aquaculture specialist and a value chain specialist. These will be recruited through a public competitive bidding process. Public administration/technical staff from the Sea, Inland and Fisheries sector will be encouraged to apply whenever they meet the requisite qualification requirements.

To achieve the objectives of the project, the project will seek to work with educational institutions, NGOs, producer organizations, research centers and others.

Monitoring and Evaluation indicators, KM and Learning

The basis for establishing a monitoring and evaluation system is the logical framework of the project and its indicators of objectives, outputs and outcomes. The monitoring and evaluation system will be defined during project design and will subsequently be refined and transformed into a manual in the initial phase of project implementation. This is intended to generate information for proper planning and decision-making. The system shall include: (a) a logical framework duly articulated between its three levels, including objectives, outcomes and outputs of activities; (b) a results framework with the definition of quantifiable targets for monitoring each year of the project, at the level of results and outputs generated by the project; and (c) the tools and processes for collecting information and preparing reports of physical and financial progress. A baseline study containing information at all three levels will be done at the start of the project. Using the same questionnaire, comparative surveys will be conducted during the midterm evaluation and at the end of the project.

IDEPA is currently improving the aquaculture information collection system with emphasis on small-scale aquaculture. At the grassroots level, the data will be collected and systematized on activities carried out with emphasis on the situation of the markets for inputs and construction activities of cages and ponds and their settlement with fish. At an intermediate level, information will also be collected on the immediate results of the training and demonstration activities related to the quantities produced in the production units, whether they are intended for own consumption or the surpluses for marketing. At the household level, surveys will be conducted to gauge the improvement of diet, monetary income, and working and living conditions of people engaged in aquaculture activities.

Knowledge Management and Learning. As per the COSOP the Project team will participate in and provide a range of KM capacity building initiatives including the following:

- Regular learning events (project/local learning days; country programme team meetings; country programme implementation reviews, etc.)
- Annual knowledge and learning market (multi-stakeholder policy engagement platform)
- Thematic networks/CoPs
- Documented lessons and best practice
- Other knowledge products to support policy dialogue, advocacy and visibility
- Knowledge partnerships with local universities / institutions
- Local learning days – specifically for capacity development at the local level

L. Risks

As discussed above, the potential impacts and risks are associated with the availability of fingerlings and fish feed at prices that make the activity of small-scale aquaculture attractive and profitable. The project design should articulate clear strategies and measures to address these constraints. Starting with the establishment of at least one supplier of fingerlings in each province, the project should continue to support the implementation of more units for market competitiveness, which could lead to a fair pricing practice for producers. In some provinces there are emerging commercial hatcheries and fish feed producers, and the project will support linkages of these with the small-scale farmers. The production of research and training canters such as CEPAQ and the Fisheries School should be used wherever necessary to stabilize prices on the market. The dispersion of producers also poses problems for permanent and effective assistance for the target group. By betting on the definition of "centralities", it will lead to the concentration of activities in selected locations that will help minimize this problem.

M. Timing

The following is an indicative timetable for project preparation.

Activity	Deadline
Documentation of the lessons learned within ProAQUA and ProPESCA	March 2018
Approval of COSOP	April 2018
Launch Workshop	April 2018
Participatory District / VC selection	May 2018
Preparation of the SECAP and vulnerability assessments review note. Detailed assessment of agroecological zones, environment, water and soil conditions suitable for different aquaculture production regimes (i.e. mariculture, cage culture, pond culture, reservoirs) and fish species	June 2018
CPMT	June 2018
Project design and revision of SECAP note and complete write-up	July 2018
CPMT / Quality Enhancement	August 2018
Up-date Design/CPMT	September 2018
Quality Assurance	October 2018
Negotiations	November 2018
EB presentation	December 2018

Both ProAQUA and ProPESCA will end in the expected period when the design of the new project to support small-scale aquaculture is completed. It is important that the subsequent review phases of the project proposal, review by IFAD's Board of Directors and negotiation of the financing agreement be carried out in such a way as to minimize the time from their closure to the start of the new project.

The deadlines presented above are in accordance with the actions that have to be carried out by the Government of Mozambique. In order to start the project, it is necessary to include the actions in the Government's Economic and Social Plan (PES), which began to be drafted in February of the previous year with the preparation of the Medium Term Fiscal Scenario. However, to include the actions in PES is necessary that

the financing agreement is signed, therefore, there are mechanisms that during the implementation of the PES of a given year new activities are included with rectification of the PES, to be approved by the House of Parliament, whenever it is deemed necessary.

The preliminary logical framework which describes the logic between the objectives and the main results can be seen in the Appendix I.

Development Goal: Contribute to reducing poverty and enhancing food security and nutrition in the project Districts		**Impact Indicators:**						
Outputs Hierarchy	**Name of the Indicator[46]**	**Baseline details**	**Mid-Term**	**End Project's Goal**	**Source**	**Frequency**	**Responsibility**	**Assumptions**
Development Objective: To sustainably enhance the livelihoods of poor households for increased income from growth of economic activities in the aquaculture value chain and family nutrition. **Outcome**: Households are food secure	% reduction of poverty in target Districts* % of persons / households reporting improved access to water or water bodies, land, forests for production purposes.	TBD %	25% of the project beneficiaries	75% of the project beneficiaries	National statistics, survey to the households including studies on the poverty and gender	Baseline survey and to the end of project	UCP with Bureau of Statistics	Existence of macroeconomics and climacteric conditions
	% of women reporting improved quality of their diets % of incremental increase of women whose membership in economic or social groups and their comfort in speaking in public[47]	TBD % 0	25% of the project beneficiaries 20%	75% of the project beneficiaries 50%	National statistics, survey to the households including studies on the poverty and gender WEAI survey	Baseline survey and to the end of project	UCP with Bureau of Statistics	
Outcome 1 Small fish farmers (and others) source required quality inputs for aquaculture enterprises at a fair price within their province from sustainable input suppliers	% of rural producers' organizations engaged in formal partnership, agreements or contracts with public or private entities							
Output 1: Develop the input markets for aquaculture								
Output 1.1feasibility & economic viability studies for the		0	3	3	Project progress reports	On an annual basis	UCP	Package of attractive incentives established

[46]Os indicadores referem-se à Área do Projecto: all indicators will be disaggregated by gender and age

[47] This indicator will be broken down by: group member and public speaking. From a baseline already undertaken for the Feed the Future: FEEDBACK. 2014. Feed the Future Mozambique Zone of Influence Baseline Report. Rockville, Maryland: Westat it is proposed from the baseline that "Prevalence of poverty (i.e., people living on less than $1.25 per day) is significantly lower among women with higher decision-making power than among women with lower decision-making power." Thus the COSOP could track the impact of women's empowerment on poverty reduction.

Development Goal: Contribute to reducing poverty and enhancing food security and nutrition in the project Districts		**Impact Indicators:**						
Outputs Hierarchy	**Name of the Indicator[46]**	**Baseline details**	**Mid-Term**	**End Project's Goal**	**Source**	**Frequency**	**Responsibility**	**Assumptions**
establishment of fingerlings production units & for fish feed production								
Output 1.2. Certified fish feed production factories& fingerlings production units established		0	3	3	Project progress reports	On an annual basis	UCP	
Output 1.3. identification of interested companies, the dissemination of existing business opportunities	No. of fingerling production Units and Fish fee enterprises sustainably operational	TBD						
Outcome 2	Percentage of persons/households reporting improved access to water or water bodies for production purposes (Number) Percentage of persons/households reporting adoption of environmentally sustainable and climate-resilient aquaculture technologies and practices							
Output 2: Improved participation of the small producers in the aquaculture value chain								
Output 2.1. Identify & select areas of higher potential for the establishment of sustainable and climate-resilient fishery infrastructure	Post-harvest losses reduced by 80% by 2022	0	21	21	Diagnosis reports	Baseline survey	UCP	Ensured the involvement of the local authorities in the leadership process
Output 2.2. Local plans for aquaculture development prepared and agreed	No. of plans approved	0	21	21	Action plans	Baseline survey	UCP	
Output 2.3. People trained in aquaculture		0	2.100	6.300	Project progress reports	On an annual basis	UCP	People interested in the practice of aquaculture
Output 2.4. Starter packages distributed		0	2.100	6300	Project progress reports	On an annual basis		

Development Goal: Contribute to reducing poverty and enhancing food security and nutrition in the project Districts		**Impact Indicators:**						
Outputs Hierarchy	**Name of the Indicator[46]**	**Baseline details**	**Mid-Term**	**End Project's Goal**	**Source**	**Frequency**	**Responsibility**	**Assumptions**
Output 2.5. Associated companies established and trained in business	No. of new jobs created % of rural producers' organizations engaged in formal partnership, agreements or contracts with public or private entities	0	21	63	Project progress reports	On an annual basis	UCP	
Output 2.6. Demonstration of farming fish and other aquatic species including: opening of ponds / construction of floating cages, supply of fingerlings for stock& feed, fish fattening & monitoring	% of persons/households reporting adoption of new/improved inputs, technologies or practices	0	525	1.575	Project progress reports	On an annual basis	UCP	
Output 2.7. Support climate smart infrastructures refurbished and/or constructed	No./% of persons / households reporting improved physical access to markets, processing and storage facilities	TBD			Project progress reports	On an annual basis	UCP	
Output 3:Availability and suitability of financial services improved TO BE FINANCED AND IMPLEMENTED THROUGH THE REFP								
Output 3.1. Community-based Groups of savings and credit assisted		0	150	450	Project progress reports	On an annual basis	UCP	
Output 3.2. Entities accessing the REFP financing		0	3	6	Project progress reports	On an annual basis	UCP	
Output 3.3. Companies supplying commodities accessing grants		0	6	12	Project progress reports	On an annual basis	UCP	

Development Goal: Contribute to reducing poverty and enhancing food security and nutrition in the project Districts		**Impact Indicators:**						
Outputs Hierarchy	**Name of the Indicator[46]**	**Baseline details**	**Mid-Term**	**End Project's Goal**	**Source**	**Frequency**	**Responsibility**	**Assumptions**
Output 3.4. Women & youth entrepreneurs accessing grants	No. of grants accessed by entrepreneurs (disaggregated by gender and age)	0	300	900	Project progress reports	On an annual basis	UCP	
Output 4: Nutritional condition of the vulnerable groups in the intervention area improved								
Output 4.1. Sensitization of community leaders and community-based organizations		0	40	125	Project progress reports	On an annual basis	UCP	Ensured the involvement of the other institutions (MOH, MINEDH, etc.)
Output 4.2. Nutrition education with women's groups	Number of women involved in Nutrition education	0	1.000	3.000	Project progress reports Survey on nutrition	On an annual basis Mid term and end of project	UCP	It is assumed that participants will enough resources to improve their dietary diversity
Output 4.3. Nutrition education campaigns in schools	Number of people involved in campaigning in schools		200	600	Project progress reports Survey on nutrition Feedback from Schools	On an annual basis Mid term and end of project	UCP	Ensured the involvement of MASA
Output 4.4. Nutrition education campaigns through community radios	Number of people exposed to radio dissemination campaigns		2000	6000	Project progress reports Survey on nutrition	On an annual basis Mid term and end of project	UCP	
Output 4.5. Demonstration vegetable gardens, storage and nutritional cooking	% of households reporting increased food security	TBD	,,,	3.000	Project progress reports Survey on nutrition	On an annual basis Mid term and end of project		
Output 5: Institutional, policy / legal environment for the development of aquaculture improved								

Development Goal: Contribute to reducing poverty and enhancing food security and nutrition in the project Districts		**Impact Indicators:**						
Outputs Hierarchy	**Name of the Indicator[46]**	**Baseline details**	**Mid-Term**	**End Project's Goal**	**Source**	**Frequency**	**Responsibility**	**Assumptions**
Output 5.1. Practical handbooks for promoting sustainable aquaculture produced		0	3	6	Project progress reports	On an annual basis	UCP	The government interest in investing in the food production sectors remains high
Output 5.2. Technicians / extensionists trained in sustainable aquaculture practices		0	30	90	Project progress reports	On an annual basis	UCP	
Output 5.3. Regulations, policies or strategy proposals submitted for approval	No. of policies/strategies approved	0	3	6	Project progress reports	On an annual basis	UCP	
Output 5.4. Results, impact and lessons learned documented, reviewed and disseminated	No. of local learning days delivered	0	5	8	Project progress reports	On an annual basis	UCP	

Concept Note 2: Inclusive Agri-food Value-chains Development Programme (PROCAVA) (In Portguese: Projecto de Desenvolvimento Inclusivo de Cadeias de Valor Agro-Alimentares (PROCAVA)

Lead Adviser: Mr. Mawira Chitima, PTA

Project ID Number: **2000001981**

A. Strategic context and rationale for IFAD involvement, *commitment* and partnership

1. **Political and Economic Context** – Over the last two decades, Mozambique has experienced an average economic annual growth rate of 7%, sustained by macroeconomic liberalization, market-based reforms, massive public investment in infrastructure and large flows of foreign direct investment. Gross National Income (GNI) per capita has increased from USD 296 in 2005 to USD 590[48]. The real Gross Domestic Product (GDP) per capita grew from USD 313 in 2005 to USD 529 2015. The real GDP in 2015 was composed of 53.2% services, 25.2% agriculture and 21.5% industry[49].

2. Mozambique is currently faced with an economic crisis triggered by a debt burden of USD $9.89 billion; equivalent to 90% of the country's 2016[50]GDP .The resulting liquidity crisis will continue to destabilise the economy. In a bid to address the liquidity problem the Government has tightened fiscal and monetary policies, and to regain the trust of international financial institutions and donors.

3. **Poverty and Rural Development Context** – Mozambique's estimated population in 2015 was 27.9 million and is growing at an annual rate of 2.8% (2015)[51]. Rural population annual growth was measured at about 2.4% and urban growth about 3.6%. Overall, the quality of life in both rural and urban areas has improved, with life expectancy increasing from 48.7 years in 2000, to 55 years in 2014. The country's HDI increased marginally from 0.209 in 1990 to 0.418 in 2015, ranking Mozambique at 181 out of 188 countries[52]. Despite this small progress on human and social development, poverty and its causes remain persistent challenges. 68.7% of the population live below the international poverty line of USD 1.90 per day and the 54.7% below the national poverty line of USD 0.5 per day.

4. **Agriculture and Smallholder Farming Context** – The 36 million hectares of potential arable land in Mozambique offers great agricultural potential. Less than 10% of this area is currently cultivated across the countries eleven provinces and 10 different agro-climatic, with only 2% of its irrigation potential currently utilized[53]. The agricultural sector in Mozambique is dominated by rainfed smallholder farmers who produce 94% of the countries total production from 99% of the sectors 4,268,585 farms. Agriculture therefore remains the primary income source for rural communities, generating 80% of a household's income and employing almost 81% of the in-country labour force. Despite this contribution to the national economy, the sector suffers from very low productivity and limited access to markets and finance, all within a very challenging business environment. The following challenges need to be addressed if the smallholder agricultural sector is to be sustainable developed, and include:: access to extension services (currently 4.3%); improved seeds (4.6%); access to agricultural inputs (fertilizers (4.5%); pesticides (5.1%); herbicides (0.5%)); utilization of manure (2.9%); access to market price information(13.6%); membership of famer organizations (2.8%); access to credit (0.6%); and loss of crops due to droughts (35.5%), floods (30.2%), pests and diseases (27.6).

[48]Atlas method – World Bank data
[49]World Bank data: http://databank.worldbank.org/data/reports.aspx?source=2&country=MOZ
[50]The Royal Institute of International Affairs 2016 – How can Mozambique manage its debt crisis?
[51]*Ibidem*
[52]UNDP – Human Development Report, 2016
[53]Agenda 2025 – Government of Mozambique - http://www.mpd.gov.mz/index.php/documentos/instrumentos-de-gestao-economica-e-social/agenda-2025/83-agenda-2025/file?force_download=1

5. **Climate change, environment and natural resources management.** Mozambique is highly vulnerable to extreme weather events such as drought, cyclones and floods, as a result of climate change. The country's vulnerability is exacerbated by both its geographic location and terrain due to its long coastline, extensive land area below sea level, and the confluence of many transnational rivers into the Indian Ocean[54]. Rapid population growth and widespread poverty lead to over exploitation and degradation of the natural resource base as households try and meet basic needs. Projected decreases in rainfall and increases in temperature are likely to have a negative impact on water availability, food security, health, and economic growth (climate change is expected to reduce GDP by 4 -14% by 2050[55]), especially for poor smallholder farmers, who are the least prepared to cope with or adapt to the impacts of climate change. Furthermore, Mozambique's natural resource base is under significant pressure from overgrazing, wildfires and rapid deforestation[56].

6. The Government of Mozambique in recognition of the challenges posed by climate change has ratified the UN Framework Convention on Climate Change (UNFCCC), and developed its Intended Nationally Determined Contribution (INDC). The INDC recognises adaptation and mitigation as critical to combating climate change through key actions such as: climate resilience in agriculture, fisheries and livestock development; evidence generation and vulnerability assessments to inform adaptation to climate change; strengthening early warning systems and technical capacity; protection of biodiversity; afforestation and sustainable soil and water management; institutional coordination; climate finance; and climate-resilient technologies and infrastructure[57]

7. **Gender and Women's Empowerment** – Despite women constituting 53% of the population in Mozambique, and dominating agricultural production, they are poorly represented in both rural and urban areas. 95% of rural women work mainly in subsistence agriculture, compared to 66% of rural men. 70% of the women are illiterate as compared to 40% of men. In agriculture, women mainly engage in food-crop farming and are responsible for household food security and wellbeing. Men tend to be engaged in cash-crop farming and off-farm employment, which increases urban migration patterns, leaving women, children, the sick and elderly in the villages. As a consequence, women's workloads have dramatically increased in recent years. A situation exacerbated by the small size of agricultural holdings and unequal access to affordable/adapted services and infrastructure which result in low and inefficient productivity.

8. **Food Security and Malnutrition** – A big proportion of domestic food needs are met through food imports (35% from South Africa), particularly edible oils and staple food crops. In 2015, staple food stuffs accounted for 12% of the national imports[58]. As a result, Mozambique continues to experience food insecurity and malnutrition at household levels. According to the World Food Programme 2016 report on malnutrition in Mozambique, 43% of children under 5 are stunted, with higher prevalence in rural areas[59].

9. **IFAD Country Programme** – IFAD has been active in Mozambique since 1983 and has invested more than USD 200 million, financing a total of 12 Projects/Programmes that are benefiting 2,193,489 households. The current IFAD portfolio comprises four active Projects/Programmes: a) the *Rural Markets Promotion Programme* (PROMER –

[54] Dutch Sustainability Unit (2015). Climate Change Profile - Mozambique. Netherlands Commission for Environmental Assessment.
[55] USAID (2012). Climate change adaptation in Mozambique. USAID
[56] Care International (2006). Climate change and poverty in Mozambique-realities and response options for CARE. CARE.
[57] Government of Mozambique (2015). Intended Nationally Determined Contribution (INDC) of Mozambique to the United Nations Framework Convention on Climate Change (UNFCCC). Ministry of Land, Environment and Rural Development, Republic of Mozambique.
[58] USDA Foreign Agricultural Service – Mozambique 2015 Agricultural Economic Fact Sheet
[59] World Food Programme Country Review 2016

USD 48.4 million.); b) the *Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors* (PROSUL – USD 44.95 million.); c) the *PRONEA Support Project* (PSP – USD 26.77 million); and d) the *Artisanal Fisheries Promotion Project* (ProPESCA – USD 57.9 million). Alongside these, the country portfolio also has two active grants: *the Promotion of Small Aquaculture Project* (PROAQUA – USD 3.3 million); and the *Strengthening Artisanal Fisheries Resource Rights Project* (PRODIRPA – USD 0.94 million).

10. **Lessons Learned from PROSUL Project** – The proposed *Inclusive Agri-food Value-chains Development Programme* will based on a number lessons that can be drawn from the three PROSUL value chains being supported across 21 districts in three southern provinces (Maputo, Gaza and Inhambane) that targets more than 20000 rural households. PROCAVA will draw lessons from PROSUL, and will also learn from initiatives like the PROIRR Project funded by World Bank. Selected lessons are:

    a. The southern region of Mozambique is affected by droughts resulting in the lack of water, frequent crop failures, lack of grazing and high mortality of cattle. The increasing frequency and duration of the droughts makes rain fed agriculture extremely risky. To address these issues the PROSUL project has invested in the promotion of multifunctional boreholes in remote rural areas to ensure water is available for livestock, people, vegetable production and seedling production when they need it. Unfortunately, the Project has struggled with the rehabilitation of irrigation schemes, despite the critical role they play in the livelihoods of rural communities. A lack of national capacity means there are delays in designs, and the latest technically more efficient interventions are not always included.
    b. PROSUL is successfully piloting the production of vegetables through protected shade cloth housing that when combined with drip irrigation raises water use efficiency, reduces the incidence of pest and diseases, and increases the quality and quantity of produce per unit area. Two key challenges to be addressed in the wider scale promotion of this integrated package is: 1. developing a production model that is financial viable and attractive to investors; and 2. Post-harvest management and market linkages
    c. The promotion of organized cattle fairs around relevant structures is a promising approach not only from a commercial perspective but also in terms animal health and movement control by the Veterinary Authority.
    d. The development of a pilot cassava stem-seed multiplication system involving emergent farmers and research institutions has helped increase on-farm productivity three-fold, from a baseline of 6 t ha^{-1} to 17-22 tones t ha^{-1}. With increasing demand for fresh cassava by the starch and beer industry, the foundations have been created to link smallholder farmers, particularly women, to these growing markets.

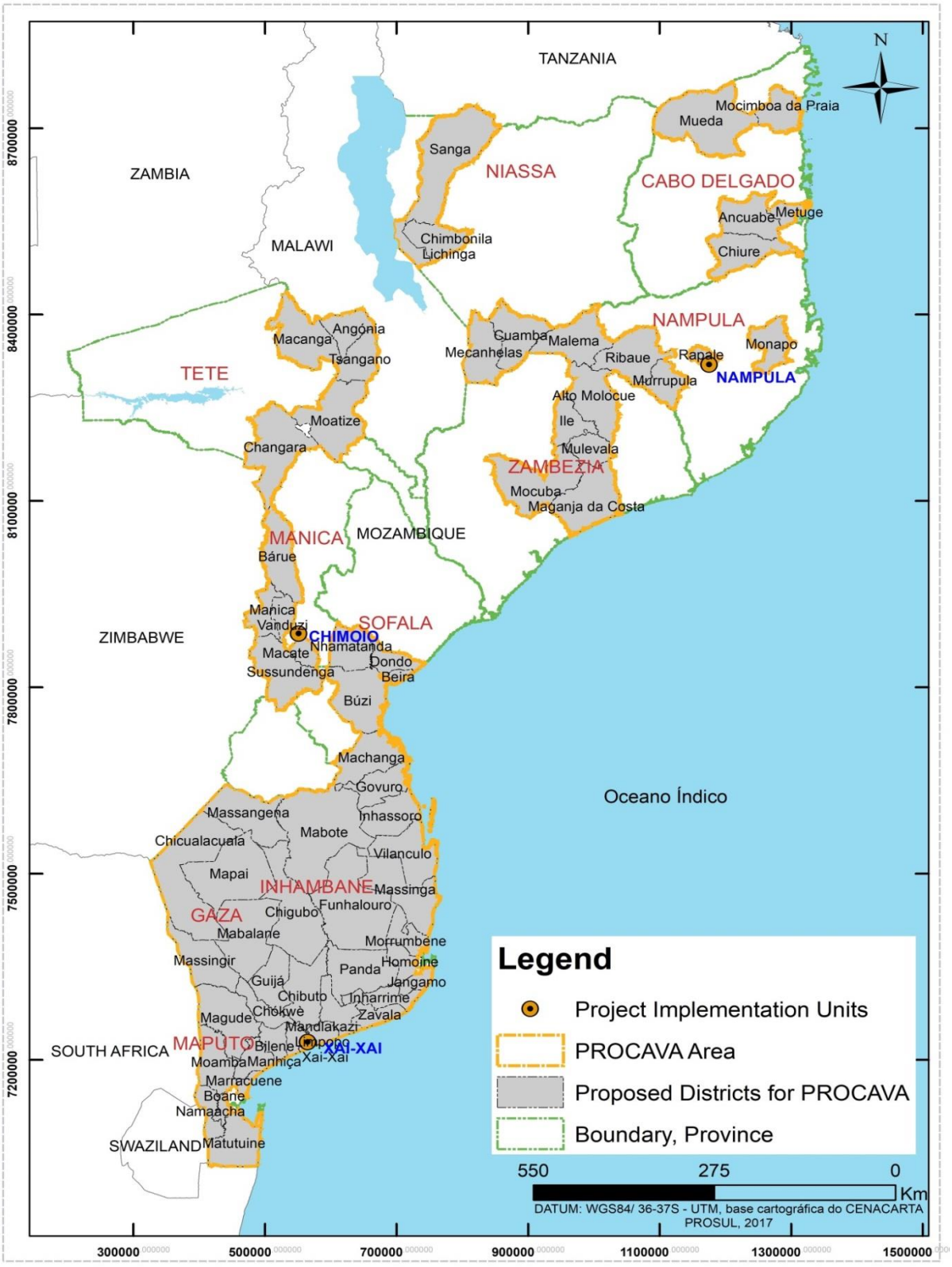
B. Possible geographic area of intervention and target groups

11. The Ministry of Agriculture and Food Security (MASA) requested IFAD to consider scaling up the interventions of PROSUL at national level. As preliminary step in the identification of the geographic scope of the new Programme, PROSUL has consulted with all Directorates of Agriculture and Food Security (DPASAs) to provide list of potential districts considering the following criteria (i) potential for reducing rural poverty; (ii) potential for promoting agribusiness value chain development; (iii) impact on food security and nutrition; (iv) rural infrastructures; (v) potential for addressing climate change issues; and (vi) impact on gender equality and youth integration. The DPASAs were informed that this will need special attention during design.

12. As result of the consultation process, a National Programme is proposed, targeting 67 districts reaching around 1.5 million rural poor households / smallholder farmers

(50% women and at least 20% youth). Appendix 1 provides the list of districts per province and total number of Programme beneficiaries. Farmer Organizations including groups, associations, water user associations and cooperatives will constitute the key project delivery mechanism to target smallholder farmers. The Programme will identify emergent farmers, local champions, contract farmers and other that will play the role of facilitators under technical assistance of the Public Extension Services and Private Extension Services if necessary. Groups that champion the needs of women and youth will be favoured and the Programme will facilitate a greater representation of women and youth in Farmer Organizations and the management of group infrastructure and associations. This will require a strong sensitization programme from the inception stage. The Programme will build partnerships with other ongoing programmes like PROIRR and the newly designed Rural Enterprise and Financing Project (REFP) for the most vulnerable by firstly participating in the "Graduation Programme" and linking with Community-Based Savings and Loans Groups and other forms of financial services in their area for access to engage in entrepreneurship activities at the micro level. As per the new COSOP, ensuring inclusive approaches essential in terms of targeting. Participatory approaches will be used in design to ensure their inclusiveness and their needs. Smallholder producers will benefit from participating in value chain activities.

13. The following map outlines potential sites for programme investment.



14. The targeting strategy would build on: (i) geographic/poverty targeting, selecting Districts with high incidence of poverty; (ii) value chain selection will be based on agroecological potential, market accessibility to the target group and have the strongest impact on their livelihoods; and (iii) design of an inclusive and participatory

approach that, on the basis of the analysis of the value-chain, will identify mechanisms for inclusiveness to integrate the most disadvantaged groups, with a priority being women and youth. The Government has already identified 15 priority value chains either for food security or for export (or both) and the project will select the most relevant by location and for the target groups.

C. Justification and rationale

15. The demand for agricultural products is expanding, as a result of increasing incomes, evolving urban markets, and growing private investment in the agri-food and tourism sectors. Unfortunately current production levels cannot meet this growing demand, without increasing the levels of food insecurity in the rural areas, unless the prevalent unsustainable land management and crop/livestock practices are replaced by climate-resilient management and agricultural production systems. The Programmes comparative advantage is that PROSUL has already shown significant successes in developing value chains and promoting good agricultural practices to kick start the rural transformation process With the application of new agricultural technologies, even in the current financial context, there is a need to prepare rural areas for more off-farm employment / entrepreneurship as the agricultural sector modernizes with technology and mechanization. Hence the programme will build into the value chains locally based value adding (micro to medium or larger if there is an investor/partner) using appropriate green technologies. Programme interventions will be determined by a set of criteria that include: potential for or existence of adequate institutions / farmer organizations; potential access to market; poverty level; agroecological potential for different value chains (following in-depth studies / climatic vulnerability assessments) and linked to one of the six corridors for access to markets.

D. Key Project Objectives

16. The **Programme Development Goal** is "*to improve the incomes and livelihoods of vulnerable households, smallholder and emergent farmers, particularly women and youth in an environmentally sustainable and socially inclusive and equitable manner*". **The Programme Development Objective**: To increase the volume of production, marketing and respective value-addition products of selected commodities from targeted communities. This objective is linked and will contribute to targets in SO1 and SO2 of the COSOP.

17. As outcomes, the Programme expects contribute for sustainable smallholder participation in remunerative production/enterprises enhanced. More specifically, by end of the Programme, it is expected to have an increase in the number of households and people reporting improvements in the volumes of selected commodities and related value added products produced and marketed..

18. The key programme outputs include (i) number of water points constructed; (ii) hectares of land under irrigation development; (iii) number of land certificates and delimitations issued for individual households and communities; (iv) number of registered and operational farmer organizations including membership and leadership of WUAs, WMCs, Cattle-fair committees supported; (v) number of smallholder farmers (incl. livestock producers) trained in production climate-resilient technologies including irrigation; animal health nutrition, business and access to market and climate information; (vi) number of smallholder farmers accessing to market through long term formal arrangements including contracts;; (vii) number of market infrastructures promoted and operational (service hubs, feedlots, slaughterhouses, cattle fairs and others); total number of km of rural roads rehabilitated (viii) number of animal health infrastructures developed including dip tanks, crush pens and others; (ix) number of smallholder farmers supported in terms of post-harvest and agro-processing initiatives; (x) number of livestock producers engaged in animal genetic improved initiatives; (xi) number of instruments/ strategies developed for improving agricultural development policies in the face of climate change.

E. Scaling up

19. This programme responds to a direct request from the Government following the successful PROSUL mid-term Review in 2016. The Government is keen to see the benefits to rural households, with an emphasis on women and youth shared across the nation with further opportunities for innovation initiated. Scaling up will also be realised through cofinancing from other IFIs (WB and AfDB) in water points for livestock and irrigation development as well as private sector investments for protected agriculture. A focus will be managing climatic and economic risks to enable year-round production, whilst providing incentives/opportunities for young people to engage in agricultural related enterprises that stimulate the rural economy and improving access to water and nutrition. While the programme is national in scope it is proposed by the Government that the PROCAVA I should start in the south as no other development partner is currently working in that area.

F. Ownership, Harmonization and Alignment

20. **Ownership** - The Programme will be implemented through MASA. The Fundo de Desenvolvimento Agrario (FDA), the current Lead Agency of PROSUL, will assume the role of Lead Agency. The Project will be hosted and managed either from Maputo or Xai-Xai, Gaza province, and capitalize on the experiences of the PROSUL Project Management Team (PMT).

21. **Alignment with National Priorities** – The objectives of PROCAVA are aligned with the Agriculture Sector Development Strategy (PEDSA) (2011-2020) goal to convert subsistence farming into market-oriented agriculture, ensuring food security and securing increases in farmers' income and emphasizes the importance of promoting agricultural development in the corridors based on four strategic pillars: (i) increasing productivity and production; (ii) improving market access; (iii) sustainable management of natural resources; and (iv) strengthening local and agricultural institutions. PROCAVA is also fully aligned to the GoM's national policies and strategies on climate smart rural development and poverty eradication as outlined in the Government's Agenda 2025.

22. Additionally, the PROCAVA is set to address constraints to agricultural development sector, in particular access to improved seeds and other inputs, limited access to improved technologies including irrigation as highlighted in the findings of the 2016 Agricultural Surveys, Irrigation Strategy and Research Strategy. The Programme will also adopt value chain development approach, focusing on specific commodities selected based on participatory approaches. Focusing on value chain approach is fully in line with the Strategic Operational Plan for Agricultural Development (PODA) in which 15 priority strategic commodities were identified. The Programme will also take into account the objectives and priority actions in the Gender Agricultural Strategy review with PROSUL support and the action plan for the provision of market and climate information to smallholder farmers.

23. **Alignment with IFAD Priorities** – The PROCAVA is fully aligned with IFAD's Strategic Framework (2016-2025) by contributing to each of the SOs *and to the COSOP for* S0s1 and 2 while increasing the sustainability of SO3 through demand.

24. **Harmonization with Developments Partners** - In the development of the PROCAVA concept note, Government and IFAD consulted multiple agencies, analysing its relevance to the larger regional agendas and national projects. The Programme is an integral part of the new COSOP and will contribute strategically (without replicating) to ongoing and upcoming initiatives of other Development Partners in Mozambique. Collaboration will be encouraged with the World Bank Irrigation Development Project (PROIRR) and the Sustenta Project implemented by the Ministry of Land Rural Development and Environment.

G. Components and activities

25. **PROCAVA Components**. The three components are: C1 - Institutional Support; C2 – Production and Productivity Improvement; and C3 – Strategic Market-Related Investments.

26. **Component 1 - Institutional Support**. This component will facilitate through policy dialogue and other processes and activities a vibrant economy, with strengthened institutions. The key interventions under this component include:

    a. Access to water and land tenure security (for production and processing) using sustainable management practices.
    b. Strengthen institutions (farmers - encouraged to formalize if they wish to engage in contracting arrangements, partnerships that would include investments to ensure their legal rights, civil society organizations, government from local to national levels, meteorological institutions including strategies for packaging and dissemination of climate information) based on their mandates to ensure sustainability.
    c. Capacity building on business skills to engage within the value chain on a fair, efficient and equitable basis (Programme will link with REFP for improving financial literacy and access to financial services);
    d. Improving knowledge on nutrition among smallholder farmers, their households and other value chain stakeholders; and
    e. Development and promotion of a climate smart sustainable water management strategy to build up motivation/awareness among water users and improve the participation of farmers in water management activities.

27. **Component 2 - Production and Productivity Improvement**. The aim of this component is to contribute to improve the levels of sustainable production, productivity, and marketing through value chain enterprises (on / off – farm). Strengthening sustainable environmental, climate and natural resource management practices will be an integral part of the component. The key interventions under this component include:

    a. *Water and irrigation.* To improve reliability and volume of production, the project shall install water infrastructure for farming areas supplying enterprises, support irrigation to farmer fields and for value adding enterprises. In the semi-arid areas, the project would support the construction of water source infrastructures such as multifunctional boreholes, earth dams/excavated reservoirs and promote rain water harvest technologies, for domestic supply, irrigation and livestock watering.
    b. introduction of improved bulls through artificial Insemination and embryo transfer.
    c. Capacity building of extension agents, Farmer Organizations, livestock promoters and other value actors/stakeholders on various technical aspects within the selected and targeted value chains to increase nutritional production, productivity, quality and competitiveness of small-scale and emergent farmers adopting gender and youth sensitive approaches; Promoting and Strengthening service hub centers and local service providers for access of improved agricultural technologies, good production practices and agri and vet inputs at the community level;

28. **Component 3 - Strategic Market-Related Infrastructure Investment**. The aim of this component will be to support rural infrastructure investments that can add value at the location, upgrade performance of enterprises and support associated agricultural producers to become competitive, environmentally and profitably sustainable. Infrastructure will be prioritized according to business plans and linkages along the value chain. The project also will strengthen access to land rights for target smallholder farmers and entrepreneurs. Solar energy will be promoted in all interventions of the project, including promoting mini-grids for village energy supply. These investments could include:

a. *Transport related infrastructure.* The project could support the promotion of climate smart/resilient transport infrastructure, rural roads and bridges, including other drainage structures, to connect farms to markets.
b. *Market infrastructures (Service Hub Centers/Agricultural Markets / cold rooms / warehouses / slaughterhouses / slaughter-slabs).* To improve the: agro-processing, storage and product conservation facilities; reduce postharvest losses; hygienic conditions of marketing facilities; and to facilitate access to better services for value chain actors to trade in a safe, reliable, transparent and competitive environment*. Waste management will be integrated in all processing and marketing facilities built by the project. ESIAs will be carried before the approval of financing selected facilities.*
c. *Cattle Management Infrastructure*. Crush pens, dip tanks, fattening centers, genetic improvement centers. The project would support installation of veterinary pharmacies. Handling Infrastructures for small ruminants - construction of treatment corridors for small ruminants, including small ruminants in current trade.
d. Strengthening of the targeted value chains and promoting dialogue/brokering linkages on input supply, agro-processing using green low carbon technologies.

H. Preliminary Environmental and Social category

29. The preliminary categorisation is proposed as A for the value chains identified (see Appendix V, Table 3) especially for roads and irrigation schemes that will be longer than 10kms and 100 hectares respectively. S

I. Preliminary Climate Risk classification

30. The proposed preliminary classification is Moderate to High depending on the commodity and location, as exposure of the programme interventions to climate-related risks is location specific. PROSUL has shown that with the benefits of water and technical innovations now available the vulnerability of target groups to climatic hazards can be managed. However, there is need to undertake in depth climate vulnerability assessments to identify potential risks and propose mitigation measures. Proposed climate change adaptation and mitigation interventions should be in line with the Government's INDC.

31. During the initial design phase a detailed Environment and Social Impact Assessment (ESIA) will be undertaken for each selected VC to help focus/guide the key activities to be invested in each sub project area and identify key elements to be included in an Environmental and Social Management Framework Plan.

J. Costs and financing

32. The Project cost is estimated at USD 130 million for a seven-year implementation period. The Programme financiers will be: IFAD, through a loan on highly concessional terms of approximately US$ 22 million leaving a financing gap of US$ 88 million after counterpart funding that maybe financed by other donor partners (the World Bank and AFDB have already expressed an interest to jointly cofinance the project with up to USD 80 million from the WB and USD20 million from AfDB) and/or the private sector. Opportunities with the Green Climate Fund will also be explored.

33. Based on the experience of ongoing IFAD operations in Mozambique, and request from the Government, the IFAD loan will cover taxes. This is a mitigation measure to curb the ongoing financial crisis in Mozambique that started in 2015, with a significant depreciation of the Metical against the US dollar. This has tended to leave government with scarce resources to meet its direct monetary contribution to IFAD projects in the form of funds to cover taxes and VAT. During Mid-Term Review of

PROCAVA, IFAD and GoM will review the overall economic and financial situation of the country and agree if the IFAD loan should continue to cover taxes.

34. The Government will make an estimated contribution of USD 3 million to the PROCAVA through secondment of government staff (DPASA's, SDAE's/SDPI's) and office buildings. The design of PROCAVA will provide specific guidelines for the assessment of government contribution, which will be detailed in the preparation of the Project Implementation Manual (PIM).

35. **Flow of Funds and Disbursement –** The Programmes flow of funds and disbursement arrangements will rely on existing Government systems. While the Project will operate a Designated Account in the Central Bank (Bank of Mozambique) to receive the financing proceeds, the funds will flow through the Government's Single Treasury Account and the experience of ongoing IFAD Projects will guide the establishment of efficient mechanisms to guarantee the rapid deployment of Project resources through e-SISTAFE (Mozambique's Integrated Financial Management Information System). Government has demonstrated commitment to tailor e-SISTAFE to IFAD's reporting needs. During design, IFAD will further engage with MASA and MEF to enhance e-SISTAFE's financial management capabilities to avoid the need for PROCAVA to use a parallel accounting software for bookkeeping. The design will also take into account the successful experience in using e-SISTAFE, Tompro and e-archive system for financial information storage.

36. Withdrawal applications will be under the Statement of Expenditure (SoE) procedure. Independent/ External auditors appointed by GoM will audit PROCAVA. From the Government side, the *Tribunal Administrativo* (Mozambique's Supreme Audit Institution) will also audit the Project's Financial Statements.

37. The implementation of the PROSUL Project has suffered from complex and time consuming Procurement processes. Moving forward to a national programme will require special attention during the design. The Programme will also support the training of government staff in procurement to guarantee full alignment with IFAD's procurement practices.

Component	**IFAD Financing**	**Cofinancing (other, Donors and private sector)**	**Government**	**Indicative Budget (USD) millions**
C1 - Institutional Support	10	8	1	28
C2 - Production and Productivity Improvement	10	30	1	41
C3 - Strategic Market-Related Infrastructure Investment	2	50	1	61
Total	**22**	**105 ***	**3**	**130**

***** The World Bank and AfDB have already indicated an interest to cofinance up to US$ 100 million

K. Organization and management

38. The Project will be implemented within the Government of Mozambique's institutional framework. MASA will have the overall responsibility of managing the Programme whilst the FDA will be the Project Lead Agency. As national programme, a Project Management Unit (PMU) will be established for the day-to-day management of the Programme at FDA. In terms of operational implementation, three options may be considered, namely:

a. Option 1: Overall Programme coordination assigned to the current PROSUL PMT based in Xai-Xai. Two additional Operational Project Implementation Units (PIU) would be established in Central (Chimoio, Manica province) and Northern (Nampula, Nampula province) regions.
b. Option 2: Overall Programme coordination assigned to to the current PROSUL PMT and move the majority of staff to Maputo, at FDA headquarter. Then proceed with the recruitment and formation of three regional Operational Project Implementation Units (PIU) being: PIU South – based in Xai-Xai, Gaza; PIU Central – based in Chimoio, Manica province; and PIU North – based in Nampula, Nampula province.
c. Option 3: Constitute a "soft" General Coordination Unit similar to Rwanda, transform the current PMT in Gaza province as PIU and form two additional PIU in the central and northern regions.

39. Options 1 and 2 fully capitalize the experience gained by the current Project Management Team. Option 1 would be relatively cheaper than 2. As a national Programme, option 2 ensures that coordination at central level and technical staff will assist effectively assist other regions. Option 3 will take time to establish and might be relatively more expensive than option 1.

40. Based on the successful experience of PROSUL in terms Government ownership and stakeholders engagement, a Project Steering Committee will have oversight of the Programme providing advisory and guidance towards Project implementation.

41. The PIU will ensure the implementation process through DPASA's and SDAE's. If necessary, the PMU may recruit service providers on long term basis for specific tasks. However, this needs to be addressed during the design looking at the lessons drawn from PROSUL and other IFAD funded projects in Mozambique and other countries like Rwanda with regard to performance of service providers and contract management. The PMU will be responsible for overall coordination of implementation, including preparation of the Annual Work Plan and Budget, procurement, progress reporting, monitoring and evaluation and financial management. It will also ensure liaison with other related government or donor-supported projects/programmes to explore and exploit any existent synergies and avoid duplication.

42. The PMU core staff will be: (i) Project Coordinator and Assistant, (ii) Monitoring and Evaluation Officer and Assistant, (iii) Financial Manager, two Accountants and one procurement officer; (iv) 2-3 Value Chain Specialists; (v) Infrastructure / Irrigation Specialist; (v) Climate Adaptation Specialist; (vi) Land Tenure Advisor; (vii) Targeting, Gender and Youth Specialist; (viii) Nutrition Specialist; and (viii) Training Expert.

43. Each PIU will consist of (a) Technical Coordinator; (b) M&E Officer; (c) Financial Manager and two accountants; (d) 2 Programme Officers (technical staff). Availability of high quality financial management and technical staff is a significant risk for the Programme. As such, PROCAVA will provide capacity building opportunities for the staff.

L. Monitoring and Evaluation indicators, KM and Learning

44. **Monitoring and Evaluation** - The basis for the overall Project monitoring and evaluation will be the logical framework and its indicators (including RIMS indicators) and a detailed results framework which will feed into the SOs of the COSOP. A comprehensive Monitoring and Evaluation system will be elaborated during design and further refined at Project inception with the aim of ensuring the generation of reliable information for timely and accurate planning and decision-making, as well as reporting on outcomes and impact. The system will include: a) a Logical Framework organized at three levels – outputs, outcomes and impact; b) a more detailed Results Framework, articulating key measurable results at each level of the objectives hierarchy with detailed monitorable annual targets at both outcome and output levels; and c) the necessary tools and systems for data collection and reporting,

including a Management Information System. The Logical Framework and Results Framework will be refined further during design. A baseline survey for collecting information at all three levels will be conducted prior to investment in the different areas.

45. **Knowledge Management and Learning** – The Programme will adopt lessons learned from the implementation of the Knowledge Management (KM) and Communication Strategy of the PROSUL. KM will play an important role in the planning, monitoring and evaluation functions, supporting a learning process to inform activities, replication and scaling up both at national, regional and local levels. The Programme KM strategy will link-up with the South-South Triangular Cooperation (SSTC) strategy currently being developed for the COSOP (2018 – 2022). KM will document and disseminate results and information using a range of appropriate media and tools. It will build on lessons learned and serve as a foundation for replication and scaling up of successes, provide the analytical basis to resolve challenges, and help to adapt activities to changing social and economic circumstances in the target area. An associated communication and dissemination strategy and materials will also be developed for both the Project KM and M&E systems. PROCAVA would actively contribute to and participate in the knowledge framework for the COSOP again strengthening the capacity all levels inside and outside of Government.

M. Risks

RISK	Level	MITIGATION
Political fragility (while political tensions in the country have eased since the New Year, the issues have not been finally resolved). A ceasefire has been agreed and it is effective so far and no hostilities have been reported since the ceasefire was agreed.	Medium	Monitor closely to avoid areas of tension
Government is faced with an economic crisis that is affecting its ability to fund part of its fiscal commitments. This was triggered by the high debt crisis, with debt-servicing costs expected to exceed USD700m in 2017	High	Contribute to assisting the Government to overcome the crisis by allow the current loan to cover 100% of project cost, including VAT and taxes
Potential increase and occurrence of weather related risks (i.e. drought, floods, cyclones)	High	Carry vulnerability assessments for each value chain and developed a 2030 outlook identifying climate smart interventions such as multifunctional boreholes, shade cloth housing and appropriate financial service products.
Low disbursement rates and slow uptake of the project	Medium	Capitalize the experience gained in the implementation of PROSUL, for instance, guidelines, staff, etc. Ensure induction training for the PIU recruited staff.
Low implementation capacity at Provincial level/ and ability of the project to attract suitably qualified staff to manage the program at Provincial level.	Medium	Train PIU staff. As adopted by PROSUL, ensure engagement of Government staff (DPASAs). Engage field extension officers at district (PSP model).

N. Timing

Activity	Deadline
First design including SECAP / Vulnerability Assessments	May/ June 2018
Review and comments by IFAD and Government (CPMT/Quality Enhancement)	July 2018
Second design (if required; otherwise revise PDR)	August 2018
Final review and endorsement by IFAD and GoM	September 2018
Quality Assurance	January 2019
Loan Negotiations with Government	February 2019
EB presentation	April 2019
Project start Up	June 2019

Appendix 1 – Proposed Geographic Area for the PROCAVA Programme

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
Maputo	1. Matutuíne	41,431	8,286	6,629	Horticulture, Cattle farming, Cereals (Rice)	○ Construction and rehabilitation/improvement of water-retention infrastructure (Dams, Multifunctional boreholes and irrigation schemes; ○ Support in production and scaling up of production technologies under protected environment; ○ Supply of startup kits for production and processing; ○ Construction of poultry house, production and processing of chicken and eggs; ○ Construction of a slaughterhouse and a processing unit for Red meats and Livestock development;
	2. Magude	62,924	12,585	10,068	Cattle farming, Horticulture	
	3. Namaacha	52,340	10,468	8,374	Horticulture, poultry farming, cattle farming, tubers (reindeer potato), Fruit trees (litchis, avocados, mango and pineapples)	
	4. Manhiça	283,376	56,675	45,340	Horticulture, Cattle farming, Tubers (Cassava and Sweet Potatoes)	
	5. Moamba	69,612	13,922	11,138	Horticulture, Cattle and Poultry farming	
	6. Boane	160,789	32,158	25,726		
	7. Marracuene	29,967	29,967	23,973		
Gaza	8. Guijá	96,452	19,290	15,432	Horticulture and Cattle farming	○ Construction and rehabilitation/improvement of water-retention infrastructure: dams, small boreholes and irrigation schemes; ○ Introduction and scaling-up of technologies of horticulture production in protected environment; ○ Construction and improvement of livestock health infrastructure; ○ Market infrastructure and agro
	9. Chicualacuala	45,656	9,131	7,305	Cattle farming	
	10. Mabalane	39,604	7,921	6,337	Cattle farming	
	11. Massingir	36,113	7,223	5,778	Cattle farming	
	12. Chibuto	219,580	43,916	35,133	Cattle farming	
	13. Bilene	173,276	34,655	27,724	Cassava, Fruit trees, Cashew	
	14. Chongoene				Cassava, Fruit trees	
	15. Mandjakazi	184,180	36,836	29,469	Cassava, Fruit trees	
	16. Limpopo	0	0	0		
	17. Chokwe	208,767	41,753	33,403		

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
	18. Chigubo	30,678	6,136	4,908		processing Promotion; ○ Promotion of fruit trees orchards; ○ Support of agro processing and market access for targeted crops/VCs;
	19. Massangena	18,543	3,709	2,967		
	20. Mapai					
Inhambane	21. Zavala	161,676	32,335	25,868	Cassava, Fruit trees	○ Construction, rehabilitation/improvement of water retention infrastructure (Dams, boreholes, and irrigation schemes); ○ Support to technologies scale-up, processing and market access for the targeted value chains; ○ Local production of seeds
	22. Inharrime	129,653	25,931	20,744	Cassava, Fruit trees	
	23. Jangamo	111,774	22,355	17,884	Cassava, Fruit trees	
	24. Morrumbene	150,133	30,027	24,021	Cassava, Fruit trees	
	25. Massinga	205,108	41,022	32,817	Cassava, Fruit trees	
	26. Homoine	129,719	25,944	20,755	Cassava, Fruit trees	
	27. Inhassoro	62,132	12,426	9,941	Cassava, Fruit trees	
	28. Mabote	52,719	10,544	8,435	Cassava, Fruit trees	
	29. Panda	52,781	10,556	8,445	Cassava, Fruit trees	
	30. Vilankulo	167,223	33,447	26,757	Cassava, Fruit trees	
	31. Guvuro	42,378	8,476	6,780	Cassava, Fruit trees	
	32. Funhalouro	48,735	9,747	7,798	Cassava, Fruit trees	
Sofala	33. Beira	462,236	92,447	73,958	Horticulture and Poultry farming	Scaling up of Protected cultivation technologies (Scaling up of shade nets/greenhouses for seed production and definitive production)
	34. Búzi	194,968	38,994	31,195	Horticulture and Cattle farming	Construction, rehabilitation/improvement of water infrastructure (dams, small boreholes and irrigation schemes
	35. Dondo	176,912	35,382	28,306	Horticulture and Cattle farming	Construction of cattle trade fairs (establishment farmer groups and

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
						improve the records on meat production)
	36. Nhamatanda	291,982	58,396	46,717	Horticulture	Construction of Poultry houses (60 hundred poultry per season/cycle);
	37. Machanga	64,219	12,844	10,275	Cattle farming	Promotion of Contract farming
Manica	38. Manica	290,131	58,026	46,421	Maize, Horticulture, Soybeans, Chicken and Cattle farming (Beef Cattle)	Construction, rehabilitation of infrastructure for production (shade nets), irrigation, processing and conservation of various vegetables and fruits
	39. Sussundenga	169,840	33,968	27,174	Maize, Horticulture, Soybeans, Cattle farming (Beef cattle and Milk)	Local production of seeds
	40. Vanduzi				Horticulture, Chicken and Cattle farming (Beef Cattle and Milk)	Genetic improvement (improved breeds) and food management
	41. Báruè	238,197	47,639	38,112	Maize, Soybeans, Litchi, Cattle farming (Beef Cattle and Milk)	Reduction of tuberculosis and bovine brucellosis
	42. Macate				Maize and Banana	Capacity building (Technical Assistance and Research)
Tete	43. Angonia	390,771	78,154	62,523	Maize, Beans, Soybeans, Reindeer Potatoes	Support to production and technologies scale-up, agro processing and market access to the targeted value chains
	44. Tsangano	232,877	46,575	37,260	Maize, Soybeans, Beans, Wheat and Horticulture	Construction/rehabilitation of production infrastructures (small irrigation schemes, multifunctional boreholes, cattle breeding, slaughterhouses and fish production), e.g. rehabilitation of Chinkhumba (Kachere) and Chidzolomondo (Chiritse)

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
	45. Macanga	216,484	43,297	34,637	Horticulture	Establishment of Farmers Organization targeted to matters of soil management, financial management, production conservation/storage and research and market analysis
	46. Moatize	365,446	73,089	58,471	Horticulture, Cattle farming and Fruit trees	Promotion of home agro processing and cooking demonstrations
	47. Changara	205,529	41,106	32,885	Goat breeding and Sesame	Improvement of the access roads of the main production centers to the greater consumption centers (Roads: Ulongue to Mulangueni, Chimphole to Majawa and from the Village to Chivomodzi, From Chicompende to Ntemangau / Capimbe and Mazoe to Chioco-Chipembere).
Zambézia	48. Mocuba	395,533	79,107	63,285	Horticulture, Cassava, Cattle farming and Poultry farming	Support to production and scaling up of technologies, agro processing and market access for the targeted value chains
	49. Mulevala				Horticulture, Cassava	
	50. Maganja da Costa	318,219	63,644	50,915	Horticulture, Cassava and Cattle farming	
	51. Ile	335,554	67,111	53,689	Horticulture, Cassava and Goat breeding	
	52. Alto Molocue	391,083	78,217	62,573	Horticulture, Cassava and Goat breeding	
Nampula	53. Malema	197,836	39,567	31,654	Horticulture, Cassava and Maize	Construction, rehabilitation of water retention infrastructures (Dams, multifunctional boreholes, and irrigation schemes)
	54. Ribáuè	264,309	52,862	42,289	Horticulture, Cassava and Maize	Support to production and scaling up of technologies, agro processing and market access for the targeted value chains

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
	55. Rapale		0	0	Horticulture, Cassava, Cattle farming and poultry farming	Construction of poultry houses, production and processing of chicken and eggs;
	56. Monapo	382,448	76,490	61,192	Horticulture, Cassava and Maize	
	57. Murrupula	177,044	35,409	28,327	Hortículture, Cassava and Maize	
Cabo Delgado	58. Ancuabe	122,269	24,454	19,563	Poultry farming, Horticulture, Cassava, Fruit trees and Cattle farming	Support to production and technologies scaling up, agro processing and market access for the targeted value chains
	59. Metuge	84,222	16,844	13,476		Multifunctional boreholes, irrigation systems, shade nets/shade clothes, input shops and dams
	60. Chiure	251,547	50,309	40,248		Capacity building for farmers organizations in matters of good agricultural practices, food, healthy and reproductive management
	61. Mueda	129,958	25,992	20,793		Multifunctional boreholes, training in food, reproductive and health management
	62. Mocimboa da Praia	110,310	22,062	17,650		Clone multiplication plots and financing tree nursery producers
Niassa	63. Cuamba	250,919	50,184	40,147	Cassava and Horticulture	Construction, rehabilitation/improvement of water infrastructure (Dams, Multifunctional boreholes for cattle breeding and irrigation schemes
	64. Mecanhelas	276,554	55,311	44,249	Horticulture and Cattle farming	Scaling up of Horticulture and Cassava production
	65. Lichinga	127,632	25,526	20,421	Horticulture, fruit trees and poultry farming	Scaling up of Poultry farming
	66. Chimbonila				Cattle farming and Horticulture	Establishment of nurseries for fruit growing

Province	Proposed Districts	Population	Households	Smallholder Farms	Proposed Commodities /Value Chains	Key Interventions
	67. Sanga	72,663	14,533	11,626	Cattle farming and Horticulture	Establishment of nurseries for fruit growing
Totals	**67 Districts**	**9,250,580**	**1,850,117**	**1,480,098**		

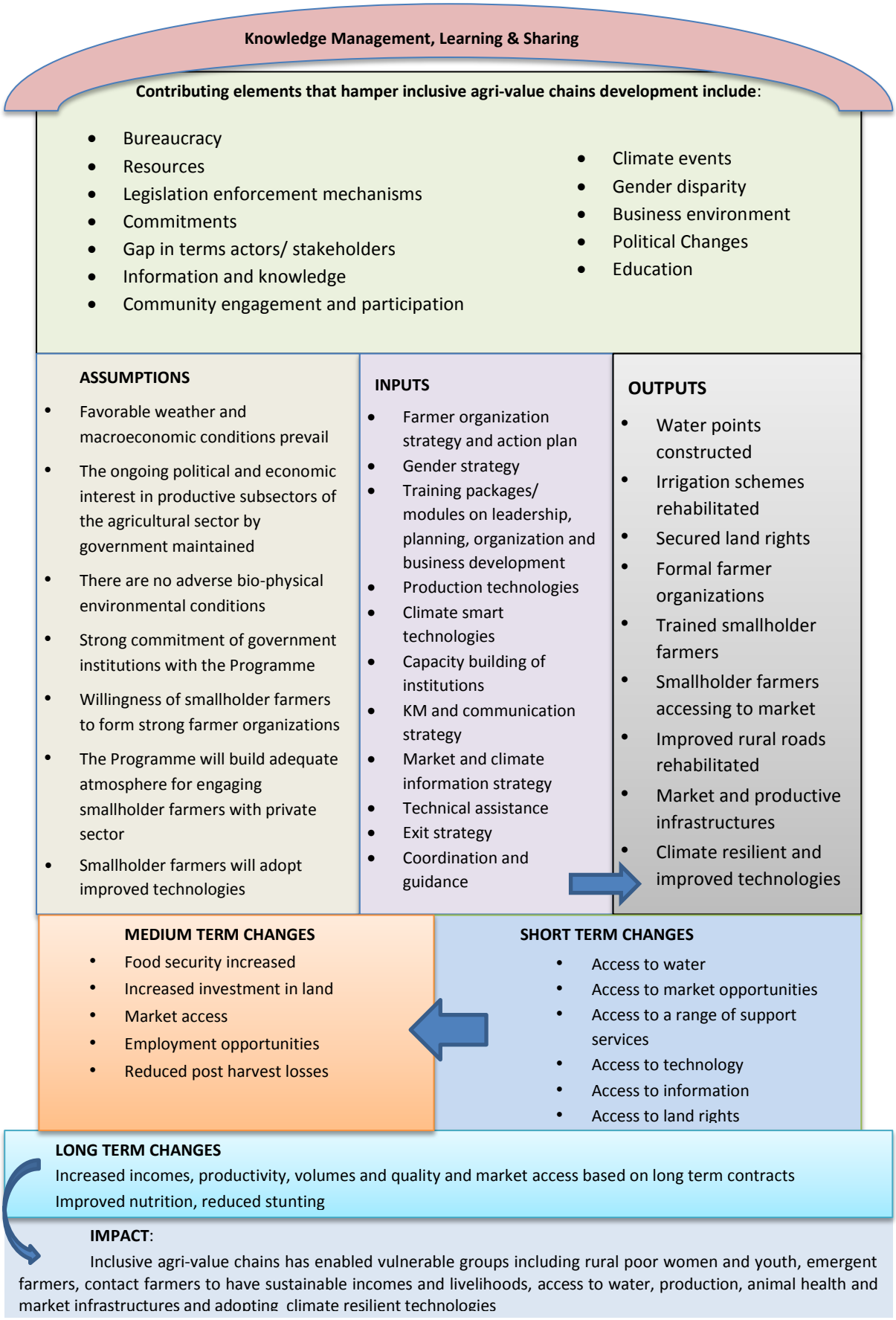
Appendix 2 - Logical Framework

Results Hierarchy	Indicator Name[60]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
Goal: Contribute to poverty reduction, increased food security and livelihoods for rural transformation.	*Impact indicators (goal level)* % reduction of poverty in target Districts* % of households reporting increased food security	TBD %	15%	75% of Project beneficiaries	National statistics, household surveys including poverty and gender studies	Baseline and completion		Favorable weather conditions and macroeconomic conditions prevail
Development Objective: To provide inclusive access to climate smart agri-food value chains and value adding in rural areas	Percentage of persons/households reporting adoption of environmentally sustainable and climate-resilient technologies and practices			4	Comprehensive evaluation studies	Mid-term and Completion		The ongoing political and economic interest in productive subsectors of the agricultural sector by government maintained
Outcome 1 **Sustainable smallholder participation in remunerative production/enterprises enhanced**	• % of persons / households reporting improved access to water or water bodies, land, forests for production purposes.	TBD	15%	30%	Longitudinal studies reports, Annual Agricultural Survey report, Household Survey reports and outcome survey reports	Baseline Midterm and Completion	PMU	Smallholders willing and participate actively in implementation of project investments
	• Households in vulnerable areas with increased water availability for agricultural production/enterprises	TBD	15%	75%	Project progress reports Supervision / implementation support mission reports	Annually 6 monthly	PMU	Smallholders willing and participate actively in implementation of project investments
Outputs 1: Institutional Support	•	TBD			Project progress reports, and Annual Agricultural Survey report	Annually	M & E Division and PMU	Improved Land tenure agreement in place.
1.1. Access to water and land with tenure	Number of land certificates issued to smallholder farmers	TBD			Annual Survey report, and Project Progress reports	Annually	PMU and MoA	There are no adverse bio-physical environmental conditions

[60]Indicators refer to Project Area

Results Hierarchy	Indicator Name[60]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
1.2.. Strengthen institutions		TBD						
1.3 Business skills	No. of producers, FOs and entrepreneurs with financed business plans	TBD						
	No. of FOs, entrepreneurs linked to finance	TBD						
1.4 climate-resilient sustainable water management	No. of WUGs practicing sustainable water management	0						
Output 2 Production and Productivity		0	0	4	Project progress reports	Completion	PMU	The ongoing political and economic interest in productive subsectors of the agricultural sector by government maintained
2.1. Sustainable Environment / climate / natural resource management practices	Number of groups supported to sustainably manage natural resources and climate-related risks	0			Project progress reports	Midterm and Completion	PMU	The ongoing political and economic interest in productive inland aquaculture subsectors by government maintained
2.2. Capacity building of various value chains actors		0	5	8	Project progress reports, Management Division Reports	Annually	PMU, Information Management Division	The ongoing political and economic interest in productive subsectors of the agricultural sector by government maintained
2.3. Implementation of a communication / extension strategy for promotion of improved technologies	No. of communication products across different target audiences	0	6	25				

Results Hierarchy	Indicator Name[60]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
2.4. Promoting and Strengthening Farmer Organizations, service centers and local service providers	No. of formalized FOs No. service centers / service providers operational	TBD 0	TBD	TBD 40?				
2.5. Promote dialogue/linkages across VCs	No. of contracts in VCs No. receiving quality and timely inputs	TBD TBD	TBD TBD	TBD TBD				
Output 3 **Strategic Market-Related Infrastructure Investment**	Percentage of persons / households reporting improved physical access to markets, processing and storage facilities							
3.1 Roads related infrastructure.	No. of kms of climate smart infrastructure completed	0						
3.2 Water and irrigation.	No. of constructed water source infrastructures	TBD	TBD	TBD				
3.3 Solar energy.	No of enterprises / processors with access to stable electricity	TBD	TBD	TBD				
3.4 Waste management technologies for water and processing affluent.	No. of processors applying technologies No. of WUGs applying technologies	0						
3.5 Market infrastructures	No. of agro-processing storage and product conservation facilities operational	0						
3.6 Cattle Management Infrastructure.	No. established and operational	TBD						


Knowledge Management, Learning & Sharing
Contributing elements that hamper inclusive agri-value chains development include:
Bureaucracy
Resources
Legislation enforcement mechanisms
Commitments
Gap in terms actors/ stakeholders
Information and knowledge
Community engagement and participation
Climate events
Gender disparity
Business environment
Political Changes
Education
ASSUMPTIONS
Favorable weather and macroeconomic conditions prevail
The ongoing political and economic interest in productive subsectors of the agricultural sector by government maintained
There are no adverse bio-physical environmental conditions
Strong commitment of government institutions with the Programme
Willingness of smallholder farmers to form strong farmer organizations
The Programme will build adequate atmosphere for engaging smallholder farmers with private sector
Smallholder farmers will adopt improved technologies
INPUTS
Farmer organization strategy and action plan
Gender strategy
Training packages/ modules on leadership, planning, organization and business development
Production technologies
Climate smart technologies
Capacity building of institutions
KM and communication strategy
Market and climate information strategy
Technical assistance
Exit strategy
Coordination and guidance
OUTPUTS
Water points constructed
Irrigation schemes rehabilitated
Secured land rights
Formal farmer organizations
Trained smallholder farmers
Smallholder farmers accessing to market
Improved rural roads rehabilitated
Market and productive infrastructures
Climate resilient and improved technologies
MEDIUM TERM CHANGES
Food security increased
Increased investment in land
Market access
Employment opportunities
Reduced post harvest losses
SHORT TERM CHANGES
Access to water
Access to market opportunities
Access to a range of support services
Access to technology
Access to information
Access to land rights
LONG TERM CHANGES
Increased incomes, productivity, volumes and quality and market access based on long term contracts
Improved nutrition, reduced stunting
IMPACT:
Inclusive agri-value chains has enabled vulnerable groups including rural poor women and youth, emergent farmers, contact farmers to have sustainable incomes and livelihoods, access to water, production, animal health and market infrastructures and adopting climate resilient technologies

Partnership with PROCAVA
Diversifying Utilization of Sweetpotato for Income and Nutrition

DRAFT CONCEPT NOTE

A. Strategic context and rationale for linking with IFAD investment, commitment and partnership

In spite of new economic opportunities for the country, poverty and food insecurity in rural parts of Mozambique continue to be a significant challenge. The most recent comprehensive assessments estimate that 34% of the total population, and 43% of children under five years old, are chronically food insecure.[61] Moreover, UNICEF asserts in 2016 that continuing drought conditions in much of the country have put an estimated 1.5 million people in a position of acute food insecurity.[62]

The International Potato Center (CIP) has been a global leader in sweet potato research and development since the late 1980s, and has demonstrated that nutritious, biofortified orange-fleshed sweet potato (OFSP) varieties are an effective tool for addressing food insecurity and malnutrition in Mozambique.[63] The efficacy of OFSP for reducing vitamin A deficiency in children and women of reproductive age has been globally recognized as a significant scientific achievement, as has been the effectiveness of using a demand-driven Integrated Agriculture-Nutrition-Marketing approach for disseminating OFSP varieties at scale.[64] Three CIP scientists were awarded the 2016 World Food Prize for this achievement. Importantly, the formative scientific research and initial scaling out programs for OFSP took place in Mozambique, and, to date, the country offers the largest number of OFSP varieties that have been adapted to local growing conditions and consumer preferences throughout the country. Accordingly, government support for OFSP research and development is particularly strong in Mozambique.

Over 2.4 million farmers in Mozambique produce about 900,000 tons of sweet potato annually according to FAO statistics. Sweet potato provides an important source of food security to millions of Mozambicans, and with highly nutritious OFSP varieties available, the crop can contribute significantly to reducing malnutrition. In general, sweet potato is classified as the fifth most important crop in Mozambique; and, in many parts of Maputo, Zambezia, Sofala, Tete, and Gaza, it is among the top three crops. In these regions, people consume sweet potato as a staple food. In recognition of this importance, the Government of Mozambique (GoM) included formally sweet potato as one of the seven priority crops in Mozambique.

Since 2012, OFSP varieties have been promoted to great effect in several provinces of Mozambique and have been adapted to several growing conditions, including drought prone areas.[65] This promotion has been extensive, though not always continuous, in Manica, Sofala, Zambezia, Nampula, and Niassa.

CIP, in collaboration with the Mozambique National Agriculture Research Institute (IIAM), released 15 drought-tolerant OFSP varieties in 2011. In 2016, seven new, drought-

[61] Government of Mozambique. 2011. Demographic and Health Survey (DHS).
[62] UNICEF. 2016. "Malnutrition Mounts as El Niño Takes Hold." Press release, February 17. http://www.unicef.org/media_90252.html.
[63] van Jaarsveld, P. J., M. Faber, S. A. Tannumihardjo, P. Nestel, J. C. Lombard and A. J. S. Benade, "ß-Carotene-Rich Orange Fleshed Sweet Potatoes Improve the Vitamin A Status of Primary School Children Assessed with the Modified-Relative-Dose-Response Test," *American Journal of Clinical Nutrition*, Vol. 81, No. 5, 2005, pp. 1080- 1087.
Hotz, C., Loechl, C., de Brauw A, Eozenou, P.,Gilligan, D.,Moursi, M.,Munhaua, B., van Jaarsveld, P., Carriquiry, A., and Meenakshi, J. V. (2011). "A large-scale intervention to introduce orange sweet potato in rural Mozambique increases vitamin A intakes among children and women". *Br J Nutr.* Oct 10:1-14.
[64] Low J., M. Arimond, N. Osman, B. Cunguara, B. Zano and D. Tschirley, "A Food-Based Approach Introducing Orange-Fleshed Sweet Potatoes Increased Vitamin A Intake and Serum Retinol Concentrations in Young Children in Rural Mozambique," *The Journal of Nutrition*, Vol. 137, No. 5, 2007, pp. 1320-1327.
[65] Andrade, Maria I., Godwill S. Makunde, Jose Ricardo, Joana Menomussanga, Abilio Alvaro and Wolfgang J. Gruneberg. 2017. Survival of sweetpotato (*Ipomoea batatas* [L] Lam) vines in cultivars subjected to long dry spells after the growing season in Mozambique. *Open Agriculture*. 2017; 2: 58–63.

tolerant, orange- and purple-fleshed sweetpotato varieties were released. With support from the Ministry of Agriculture and international donors, CIP and IIAM have these varieties under multiplication in the IIAM Research Stations and with private sector multipliers at decentralized level. CIP, GoM, and partners are promoting OFSP varieties throughout the country. As a result, about 22% of all sweetpotato in Mozambique are now OFSP varieties.[66]

In recognition of the significant contribution OFSP can make to food security and nutrition, GoM has included OFSP in their country investment plan and the priority crop list for the country.[67] The Ministry of Agriculture specifically requested all extension agents in the country to include OFSP into their 1ha demonstration plots of priority crops to be promoted. In the nutrition sector, OFSP has been adopted as a mainstream technology for combating vitamin A deficiency by SETSAN and in the country's strategy in the SUN movement.

B. Possible geographic area of intervention and target groups

Sweetpotato is suitable for smallholder cultivation throughout most of Mozambique. OFSP varieties have been established in several provinces, and are now being promoted country-wide by GoM extension services and nutrition programs. The project will focus on areas of high opportunity and need for diversifying and commercializing the utilization of sweetpotato. These areas are aligned with investments in infrastructure and capacity in three development corridors: Nacala, Beira, and Maputo. Each corridor offers a different set of opportunities for sweetpotato to contribute to income and nutrition, depending on socio-economic and agroecological conditions. The project geographical focus and technical emphasis will be as follows:

Table 1: Geographical focus and target groups

Corridor	Provinces	Technical emphasis	Primary target groups
Nacala	Zambezia, Niassa	Increase smallholder productivity; improved utilization for household nutrition	Smallholder households with children under five
Beira	Manica, Sofala	Increase smallholder productivity; use of waste and by-products as fish feed	Women farmers; rural youth; fish farmers; commercial food processors and their employees
Maputo	Maputo	Urban marketing; use of waste and by-products as animal feed	Urban youth; small-scale enterprises; women traders and retailers

The primary target group of the project is smallholder farming families with children under five years of age. These are considered to be particularly vulnerable to vitamin A deficiency and other forms of malnutrition. The project aims to benefit at least 10,000 households in this category in the target corridors. The project will also work with market-oriented farmers, particularly targeting women, to build their capacity for sweetpotato multiplication and marketing of planting material and roots. The project will benefit women traders and retailers to increase their incomes from OFSP and other nutritious foods; and it will support small enterprises engaged in processing and animal feed production and marketing, thereby creating employment opportunities for youth.

[66] Government of Mozambique. Ministério da Agricultura e Segurança Alimentar (2015). Anuário de Estatísticas Agrárias 2012-2014.
[67] Government of Mozambique. 2014. *National Agricultural Investment Plan 2014-2018*. Maputo: Ministry of Agriculture.

Finally, the project will contribute to capacity development of GoM institutes and extension services.

C. Justification and rationale

The project builds on CIP's Integrated Agriculture-Nutrition-Marketing approach that has been shown through proof-of-concept research to have a significant positive influence on vitamin A intakes and status in young children and that has also been shown to be scalable through demand-led delivery systems.[68] As a result, more than 4.5 million households in Africa and Asia today produce and utilize OFSP for nutrition and incomes.[69] Extending these benefits to poor and malnourished population in Mozambique is a priority of GoM working in partnership with CIP and other implementing partners. This project will support this collaborative effort with a particular geographical focus in the Nacala and Beira corridors where GoM and CIP have identified strong demand for OFSP among farming communities and where opportunities exist to partner with related initiatives for greater impact. In addition to this geographical targeting, the project will also focus on strategic technical areas that can catalyze further investments from producers, market operators, and service providers in public and private sectors. These strategic areas are:

- Improved use of irrigation, high quality planting material of improved varieties, crop rotation, and intercropping to increase productivity and widen the seasonal availability of OFSP for broader nutrition impacts and increased income opportunities. As seasonality and drought impacts are major constraints to food and nutrition security in Mozambique, the project will generate important evidence of intensification options and can potentially stimulate further investments based on this evidence.
- Innovative use of sweet potato waste and by-products for animal feeds, including fish feeds, to meet the rising demand for effective and affordable (locally manufactured) feed. While sweet potato is widely used as animal feed in Asia, its use in Africa for this purpose is only just emerging – driven by the tremendous demand in the livestock and fish sectors. The project will partner with IFAD's aquaculture project in Manica for insect rearing from sweet potato waste, and work with livestock extension services in other provinces to promote high-quality sweet potato-based silage.
- Connected to this diversified use, the project will also explore options for using waste and by-products from sweet potato, cassava, banana, and other crops accruing in urban centers, to be used as animal feed. Management of this waste has been highlighted as a major constraint (and cost) by municipal councils in Mozambique. Through operational research, the project will demonstrate whether and how parts of this waste can be used as an input into silage and other forms of animal feed.
- A fundamental challenge for marketing of sweet potato in Mozambique is the perishability of the roots and the long distances between production areas and consumption centers. At the same time, demand for fresh nutritious foods, including sweet potato and vegetables, among urban populations is growing and the potential nutrition benefits for the urban poor are significant, given the rising prices of imported food available in urban markets. Building on ongoing research on sweet potato storage, the project will work with traders and retailers in Maputo and Beira to identify technology options, such as commercial storage, that will improve availability of OFSP and vegetables in urban markets. The project will also assess options for long-distance trade of OFSP within the Nacala, Beira, and Maputo corridors, as well as between Northern Mozambique and Maputo assessing specifically the feasibility of transporting OFSP from Niassa and Zambezia in commercial freight lorries on their (empty) 'return leg' to Maputo.

Investing in OFSP has been shown to yield high returns to national economies in terms of Disability-Adjusted Life Years (DALYs) saved. Research results indicate that about

[68] Hotz et al 2012 op. cit.; van Jaarsveld et al 2005 op. cit.
[69] Low, J. et al. 2017: Tackling vitamin A deficiency with biofortified sweet potato in sub-Saharan Africa. *Global Food Security*. Vol. 14.

29% of vitamin A deficiency-related DALYs could be saved through the use of OFSP in countries with high per capita consumption of sweetpotato.[70] At farm level, economic gains can be similarly significant where improved OFSP varieties are being introduced. Even at a low market price of US $0.25 per kg, productivity increases of 50 percent can translate into additional incomes of more than US $50 per season for resource-poor smallholders. OFSP thus provides an excellent investment opportunity, exemplifying the value of biofortification as a large-scale strategy towards poverty reduction and improved nutrition with estimated returns of $16 for every dollar invested.[71]

The project will link with several existing partnerships and ongoing OFSP research and development programs coordinated by CIP and GoM which together constitute a major national initiative for nutrition-sensitive agriculture (see Table 2).

Table 2: Wider programme context of this project

Programme	Technical focus	Geographical focus	Partnerships
VISTA (USAID) 2014-2020	Scaling out OFSP production for child nutrition	Nampula, Zambezia	IIAM, SETSAN, provincial government, NGO's
SUSTAIN (DFID) 2013-2018	OFSP production, nutrition education, and processing	Manica	IIAM, NGO's, commercial food processors
Niassa and Inhambane OFSP (Irish Aid) 2013-2018	Integrating OFSP into provincial and district planning	Niassa, Inhambane	IIAM, SETSAN, provincial government, NGO's
SASHA (BMGF) 2010-2019	OFSP breeding, seed systems, and storage	Country-wide	IIAM
OFSP for drought response (OFDA/USAID) 2015-2018	Improving climate resilience through drought tolerant OFSP varieties	Gaza, Inhambane, Maputo	MoA, provincial government, NGO's

Within this wider program, the contribution of this project will be to demonstrate and promote options for diversified use of OFSP for increasing rural incomes, youth employment, and nutrition among vulnerable populations also in urban areas.

D. Key Project Objectives

The project aims to contribute to increased rural incomes and employment opportunities for women and youth, and to improved child and maternal nutrition. The immediate purpose of the project is to help diversify and commercialize the utilization of sweetpotato in the Nacala, Beira, and Maputo corridors through improved technologies, skills, and institutional capacities. The three specific objectives of the project and their expected outcomes and outputs are:

[70] Fuglie, K. and Yanggen, D. 2007. Impact of sweetpotato biofortification on vitamin A deficiency in developing countries: an ex-ante economic assessment. Manuscript. Lima, Peru: International Potato Center (CIP). p. 34.
[71] Bouis, Howarth E and Amy Saltzman. 2017, Improving nutrition through biofortification: A review of evidence from HarvestPlus, 2003 through 2016. *Global Food Security*, 12:49-58.
Ruel, M.T., et al. (2013). Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition? *Lancet* 382, 536–551.
Lividini, K. et al. 2017. Biofortification: A review of ex-ante models. *Global Food Security*, in press. https://doi.org/10.1016/j.gfs.2017.11.001

1. Increase smallholder sweetpotato productivity and production.

Outcomes

- At least 10,000 smallholder farmers (Nacala, Beira, and Maputo corridors) increase their production of OFSP;
- Increased productivity of sweetpotato by at least 20% under smallholder conditions; and
- Expanded season of availability of OFSP at household level and in selected market chains.

Outputs

- Private nurseries for the multiplication and marketing of OFSP and other nutritious crops established;
- Improved capacity at Gurue, Umbeluzi, and Sussundenga IIAM research stations for early generation seed production and partnerships with private seed multipliers and sweetpotato producers;
- Irrigation options identified to support year-round sweetpotato production in selected sites; and
- Improved technical skills of farmers and technical extension at provincial and district levels.

2. Diversify the utilization of sweetpotato for income and nutrition

Outcomes

- Increased and safe consumption of OFSP in smallholder households;
- Increased use of sweetpotato waste and by-products to support animal production;
- Increased incomes for smallholder farmers; and
- Increased employment and business opportunities in small-scale processing sector.

Outputs

1. Smallholder households trained in OFSP utilization for family nutrition;
2. Market linkages established/strengthened for OFSP producers in Nacala, Beira, and Maputo corridors;
3. Technology options tested for use of sweetpotato waste and by-products for fish feed (Manica Province); and
4. Technology options tested for use of urban sweetpotato waste and by-products for animal silage (Maputo Province).

3. Improve the marketing of sweetpotato and vegetables in urban markets

Outcomes

- Improved market access for OFSP and vegetable producers in Beira and Maputo corridors; and
- Better understanding of investment options to support availability of nutritious OFSP and vegetables among urban poor.

Outputs

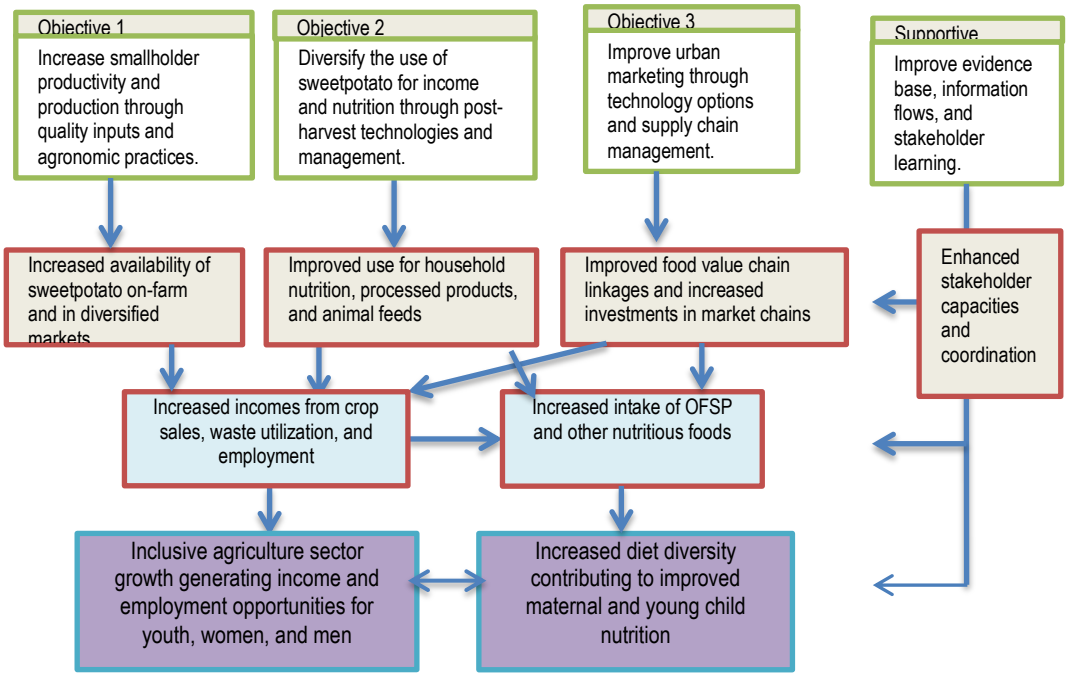
1. Sweetpotato and vegetable supply chain and retailing network documented and analyzed (Maputo and Beira), with particular emphasis on low-income consumers; and
2. Storage and other post-harvest technology and management options tested to expand availability of nutritious OFSP and vegetables in urban markets for low-income consumers.

Underpinning these three objectives, the project will provide information, training, and capacity building for smallholder farmers and their associations, traders, processors, and GoM staff.

The project's Theory of Change builds on evidence from related work by CIP and partners in Mozambique and neighboring countries and assumes at its core that smallholder farmers can upgrade their productivity and economic success through

improved sweet potato technologies, knowledge and skills for production, consumption, use, and commercialization. If well connected to diverse market opportunities in the development corridors, these benefits can be sustained and increased through improved sales and employment. And secondly, if accompanied by nutrition education, these benefits can be transformed into increased consumption of nutritious foods (from own production and from markets) and better nutrition status of mothers and young children. Fig. 1 illustrates the Theory of Change.

Fig 1. Project Theory of Change



E. Scaling up

The project will focus its activities in specific locations to be identified in consultation with GoM in the participating provinces, and several of these activities will consist of the piloting of new technologies, technology demonstrations, and operational research. On the other hand, the broader program framework of CIP in Mozambique and the strong set of partnerships committed to OFSP provide a strong platform for scaling up project activities and findings. The design and focus of the activities will emphasize their scalability and the project will benefit from the strong experience of CIP taking OFSP technologies to more than 300,000 households in Mozambique. Through careful analysis of scaling up pathways and partnership building with government, civil society, and the private sector, investments in OFSP have increased to their present scale. Innovations generated through this project will have the benefit of these strong scaling vehicles. Specifically, the project will pursue the following scaling up opportunities:

- Dissemination through related ongoing CIP projects and programs: CIP's active OFSP programs in Nampula, Zambezia, Niassa, Inhambane, Gaza, and Maputo provide a vehicle for applying project results in most of the sweetpotato growing provinces of Mozambique.
- Dissemination through GoM programs: The inclusion of OFSP in standard GoM agriculture extension services, Scaling up Nutrition (SUN) and other nutrition programs, disaster risk reduction programs, and climate change adaptation plans provides an opportunity for country-wide scaling of project recommendations and demonstrated successes.
- Demand creation through awareness building and trainings: The project will involve key stakeholders from the private sector, civil society, and government in awareness building and technical trainings to build demand for OFSP related

technologies and foods. This involves local government authorities in rural and urban areas, farmer and trader associations, and food processors and retailers.

F. Ownership, Harmonization and Alignment

The proposed project will align with all GoM efforts in nutrition, particularly with the Multisectoral Action Plan for the Reduction of Chronic Undernutrition and SUN work, centered on improving the nutrition of pregnant and lactating women and children under the age of five as well as on improving households' access and utilization of foods with high nutritional value. In addition, this design responds to comments and inputs from various levels of the GoM, pointing to low yields of nutritious varieties of OFSP, poor diets of target populations, and areas for improvement in market development and in capacity building as key for moving the nutrition message forward.

All activities outlined below fit within IFAD's Strategic Framework and address cross-cutting themes in youth, gender, and climate and environment. Specific areas of alignment include SO1's push for sustainable intensification of production to raise yields and nutritional value and an increase in availability, accessibility, affordability, and consumption of nutritious foods, including biofortified varieties; and SO2's goals in market engagement for rural communities and increased interaction with the private sector. We anticipate collaboration with both private sector partners that could lead to expanded partnerships and with IFAD's operations throughout the country. This intervention will contribute mostly to poverty reduction (SDG 1) and the fight against hunger (SDG 2).

G. Components and activities

The technical design of this project is based on proven approaches and methodologies implemented by CIP and partners in Mozambique. Within the broader Integrated Agriculture-Nutrition-Marketing framework, the focus of this project is to utilize opportunities for diversification and commercialization of sweetpotato in Mozambique, specifically to intensify production of OFSP in selected geographical areas where new market linkages can be established, to demonstrate the use of sweetpotato waste and by-product for animal feed, and to improve supply chains to urban markets. In support of these objectives, the project will implement the following activities:

Objective 1: Increase smallholder sweetpotato productivity and production.
Principal activities:

- Multiplication of planting materials of five improved OFSP varieties (establishment or expansion of nurseries and training of multipliers);
- Expansion of the capacity at Gurue, Umbeluzi, and Sussundenga IIAM research stations for early generation seed production and partnerships with private seed multipliers and sweetpotato producers;
- Implementation of operational research to identify effective and cost-effective irrigation options to support year-round sweetpotato production in selected sites;
- Implementation of farmer-led varietal demonstrations ('Mother-Baby-Trial' methodology) and selection of preferred varieties;
- Installation of farmer-led agronomic demonstrations including intercropping, crop rotation, and use of additional inputs;
- Marketing and distribution of quality planting materials of preferred varieties to at least 10,000 direct beneficiary households with children under five, and farmer-to-farmer diffusion to additional 30,000 indirect beneficiary households;
- Farmer training in sweetpotato agronomy and conservation of planting material; and
- Operational studies to determine factors affecting production of OFSP among resource-poor households.

Objective 2: Diversify the utilization of sweetpotato **for income and nutrition**
Principal activities:

- Training of women and men in smallholder households in OFSP utilization to support family nutrition, including household-level storage, nutritious food preparation, and diversity of diet throughout the year;
- Farmer training in harvesting and bulking strategies and techniques and post-harvest handling;
- Facilitation of market days focusing on OFSP during seasons of availability and other nutritious foods during rest of the year;
- Operational research to establish effective use of sweetpotato waste and by-products for fish feed, including cultivation of insects as a protein source for high-quality fish feeds. This activity will be linked to IFAD's aquaculture project in Manica Province; and
- Training of youth groups in manufacturing and marketing of high-quality silage from sweetpotato peels and spoilt roots for pig and dairy production, using proven methodologies and technologies. This will be complemented by a pilot activity to utilize urban waste from sweetpotato, cassava, banana, and other crops as ingredients in silage manufacturing. Participating youth will receive certificates as recognition of improved skills and employability.

Objective 3: Improve the marketing of sweetpotato and vegetables in urban markets

Principal activities:

- Implementing an assessing of sweetpotato and vegetable supply chain and retailing networks in Maputo and Beira, with a particular emphasis on low-income urban consumers;
- Piloting activities to use commercial storage technologies to expand availability of OFSP and vegetables in urban markets for low-income consumers;
- Facilitation of market days focusing on OFSP during seasons of availability and other nutritious foods during rest of the year; and
- Training of transporters, traders, and retailers in improved packaging, handling, and retailing.

H. Preliminary Environmental and Social category

The majority of the activities outlined for the proposed project are anticipated to have minimal environmental or social implications and should be classified as Category C. They center on research, technology dissemination, and capacity building, and are in fact designed to build socially inclusive and environmentally sustainable opportunities.

In 2017, CIP put in place an Environmental Stewardship Framework Policy, which sets out our policy on land clearance, irrigation, fertilizer use, and water management, in the acknowledgement that such practices are geared towards the improvement of smallholder farmers' lands and livelihoods. Sweetpotato production does not include any major application of pesticides or other chemical inputs. While it makes use of residual moisture in low-lying valleys for multiplication and conservation of planting material, CIP-IIAM have developed guidelines that optimize the sustainable use of these resources. The project targets both women and men as producers, traders, processors, and consumers of sweetpotato. Gender equity and promoting women's opportunities in food value chains are main principles of project design, and all relevant indicators will be disaggregated by sex.

I. Preliminary Climate Risk classification

The project is moderately sensitive to climate risks, based mainly on the potential risk to crop production. CIP and partners have many years of experience in programming for climate risk reduction. The project will introduce sweetpotato varieties that are drought tolerant and establish easily after floods, while simultaneously strengthening local risk management capabilities through training. CIP's ongoing program with GoM on drought mitigation and disaster response will provide practical guidance for the design of specific activities.

J. Costs and financing

The indicative budget for the project is US$ 1.2m over 2 years, of which the amount requested from IFAD is US$ 1.0m. CIP will provide *in kind* cofinancing equivalent to US$ 0.2m from ongoing projects. The budget allocation by project objective is as follows:

Project objective	*Tentative budget allocation*
Objective 1 (smallholder productivity)	0.5m
Objective 2 (diversification of use)	0.5m
Objective 3 (urban marketing)	0.2m

K. Organization and management

IIAM will be the lead government agency for project formulation, and CIP, through its Mozambique country office in Maputo, will coordinate the implementation of the project in close collaboration with the agency. CIP operates in Mozambique under a Memorandum of Understanding with the Ministry of Agriculture. IIAM's mission is to conduct research and development activities in order to contribute to the improvement of agricultural production in Mozambique. IIAM possesses a modern tissue culture laboratory that can be used for sweetpotato propagation, as well as screen house facilities and multiplication fields in the provinces where the project will operate. CIP has laboratory facilities that can be used for testing sweetpotato roots, leaves, and processed products.

A second government partner is the Agricultural Extension Service at district and provincial level. Per the government's *Um Extensionista Um Hectare* policy, each Extension Agent is required to have a demo plot of at least 1 hectare; and for those located in the drought-prone areas, OFSP has been prioritized as an essential crop to be included in the demo plot. As in all OFSP-related activities, CIP and the district level extension service will identify Extension Agents who will be trained and assigned to the project. CIP works closely with the heads of IIAM, the National Research Institute, and the National Directorate of Rural Extension to coordinate this work and ensure that it is integrated into departmental and individual workplans.

Thirdly, for implementation of the nutrition related activities, CIP will continue its close collaboration with the Secretariado Técnico de Segurança Alimentar e Nutricional (Technical Secretariat for Food Security and Nutrition, SETSAN). In coordination with SETSAN, CIP will work through local Polyvalent Health Agents (APS) or Community Health Agents (ACS) to implement nutrition education, providing these local government agents with customized nutrition tools developed by CIP for use during their regular extension activities. The project will also engage Associacao de Nutricao e Seguranca Alimentar (ANSA), a local NGO with excellent capacity for delivery of nutrition interventions.

CIP will designate an experienced Project Manager to lead the project. He or she will be supported through existing technical (agriculture, marketing, nutrition), finance, and administration staff. CIP will be able to utilize offices and partners in Maputo, Nampula, Manica, and Niassa for project implementation. IIAM stations and extension staff in these provinces will provide additional support.

L. Monitoring and Evaluation indicators, KM and Learning

The project will use the following main M&E outcome indicators and learning processes (see also logframe for more detailed output indicators):

Objective	Main indicators	Targets	Baseline
1. Production	• Increase in hectares under OFSP • Percentage increase in sweetpotato yields	500 20%	Baseline during year 1
2. Diversified use	• Percentage increase in agricultural income from sales of OFSP • Fish feed technology verified • Silage enterprises established	15% 1 3	Baseline during year 1
3. Urban markets	• Urban markets with improved availability of OFSP • Storage or other technologies verified	4 2	Baseline during year 1

The project will hold quarterly review and learning events involving all key implementation partners. Quarterly progress reports will be produced based on quarterly evaluation and curation of M&E data by CIP and implementing partners. In addition, a final Annual Report will be produced capturing findings from baseline and endline surveys. These findings will also be presented to stakeholders for their perspectives and recommendations during a final stakeholder workshop.

M. Risks

Overall, the risk to project implementation is very low. CIP and partners have ongoing activities in most of the project locations, using similar approaches. The main potential risks and mitigating measures are as follows:

Risk factor	Mitigating measure
<u>Environmental</u> • Adverse climatic conditions (drought and floods) can limit sweetpotato production and reduce or delay adoption of new varieties.	The project promotes climate-resilient varieties that have proven to be drought tolerant and easy to establish after floods.
<u>Political</u> • Instability and insecurity in the Beira corridor may hinder project implementation.	The project works closely with GoM to monitor this risk factor and has a contingency plan in place to safeguard staff and resources.
<u>Economic</u> • Food price increases may limit market demand for OFSP and other nutritious foods. • Costs of project implementation may increase due to exchange rate fluctuation.	Updated price information from market monitoring will guide the project's marketing strategy. Sweetpotato is generally a low-cost product with comparatively stable prices. CIP will use its costings from similar activities in the project areas to anticipate changes.
<u>Social</u> • Participation by women may be limited due to social norms or work overload. • Participation by youth will require additional awareness creation.	The project will pro-actively assess best opportunities for women to participate and will customize its approaches accordingly. The project will consult with programs working with youth to adopt effective approaches for engagement.

International Potato Center (CIP)
Diversifying Sweetpotato for Income and Nutrition in the Beira, Nacala, and Maputo Corridors, Mozambique

Results Hierarchy	Indicator Name[72]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
Goal: Contribute to increased income and better nutrition among vulnerable households	Percentage of female and male headed households that realize an increase in income and improvement of diets	TBD %	15%	75% of Project beneficiaries	National statistics, household surveys including poverty and gender studies	Baseline and completion	GoM	Favorable weather conditions and macroeconomic conditions prevail
Development Objective: Enable smallholder farmers and small enterprises to intensify and diversify OFSP production and utilization	Number of farmers (men and women) having expanded their OFSP production Number of enterprises engaging in OFSP utilization	TBD TBD	4,000 2	10,000 6	Comprehensive evaluation studies	Mid-term and Completion		The ongoing political and economic interest in productive subsectors of the agricultural sector by government maintained
Outcome 1 **Increased smallholder OFSP productivity and production**	Increase in hectares under OFSP	TBD	200	500	Annual Agricultural Survey report; Household Survey reports and outcome survey reports	Baseline Midterm and Completion	PMU	Smallholders willing and participate actively in implementation
	Percentage increase in sweetpotato yields (through adoption)	0	20%	20%	Project progress reports	Annually	PMU	Smallholders willing and participate actively in implementation
Output 1.1 OFSP planting material supply chains strengthened	Number of OFSP varieties maintained in vitro and in screenhouses at IIAM	TBD	10	15	Project progress reports, and Annual Agricultural Survey report	Annually	PMU and IIAM	GoM continues to avail facilities and staff
	Increase in ha under improved multiplication (preferred varieties)	-	3ha	7.5ha	Project progress reports, and Annual Agricultural Survey report	Annually	PMU	GoM and farmers continue to avail land and facilities

[72]Indicators refer to Project Area

Results Hierarchy	Indicator Name[72]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
	Number of technical staff from government and private sector trained in key skills	-	100	200	Project progress reports	Annually	PMU	GoM and farmers continue to avail staff and participate
	Number of private sector enterprises profitably operating OFSP nurseries	TBD	2	4	Project progress reports	Annually	PMU	Farmers willing and able to take up OFSP multiplication
Output 1.2 Farmer capacity for OFSP production and planting material management improved	Number of farmers accessing and managing planting material of OFSP varieties from improved sources	TBD	4,000	10,000	Annual Survey report, and Project Progress reports	Annually	PMU and MoA	Smallholders willing and participate actively in implementation
	Additional annual production of OFSP	-	1,000 MT	2,500 MT	Annual Survey report, and Project Progress reports	Annually	PMU and MoA	Smallholders willing to participate actively in implementation
Outcome 2 Diversified utilization of sweetpotato for income and nutrition	Percentage increase in income from diversified use of OFSP	-	10%	15%	Annual Survey report, and Project Progress reports	Annually	PMU	Smallholder farmers, traders, and small enterprises willing and able to participate; local authorities support
Output 2.1 Smallholder households trained in OFSP utilization for family nutrition	Number of farmers trained	TBD	4,000	10,000	Annual Survey report, and Project Progress reports	Annually	PMU	Smallholders willing to participate actively in implementation
Output 2.2 Smallholder linkages to markets strengthened	Number of smallholder farmers selling OFSP into processing chains	TBD	100	300	Annual Survey report, and Project Progress reports	Annually	PMU	Smallholder farmers and traders willing to participate in OFSP marketing interventions

Results Hierarchy	Indicator Name[72]	Baseline	Mid-term	End Target	Source	Frequency	Responsibility	Assumptions
Output 2.3 Technology options tested for use of sweetpotato waste and by-products for fish feed	Number of technologies verified	TBD	1	2	Project Progress reports; technical and scientific publications	Annually	PMU	Smallholder farmers and small enterprises willing and able to participate; local authorities support
Output 2.4 Technology options tested for use of urban sweetpotato waste and by-products for animal silage	Number of technologies verified	TBD	1	2	Project Progress reports; technical and scientific publications	Annually	PMU	Smallholder farmers and small enterprises willing and able to participate; local authorities support
Outcome 3 Improved marketing of sweetpotato and vegetables in urban markets	Number of project recommendations adopted by commercial stakeholders	TBD	-	2	Project progress report; outcome surveys	Midterm and Completion	PMU	Commercial stakeholders interested to participate; local authorities support
Output 3.1 Sweetpotato and vegetable supply chain and retailing network assessed	Number of published reports	-	1	2	Project progress reports; technical and scientific publications	Midterm and Completion	PMU	Commercial stakeholders interested to participate; local authorities support
Output 3.2 Technology and management options tested to expand availability of nutritious OFSP and vegetables in urban markets	Number of technology and management options verified through research and stakeholder validation	-	1	2	Project progress reports; technical and scientific publications	Midterm and Completion	PMU	Commercial stakeholders interested to participate; local authorities support

Mozambique COSOP Framework for the Knowledge Management Strategy

Knowledge management

43. The overall purpose of KM is to enable the country programme to build a credible knowledge base of practical and actionable know-how that can be used to better address rural development challenges in Mozambique. The detailed KM framework can be found in Appendix VII.

44. The ICO, in close collaboration with projects, the Government, local institutions, communities and other partners, will lead a strategic and integrated approach to KM that supports achievement of the COSOP goal and strategic objectives by:

(i) promoting broad consultation with IFAD target groups, with a specific focus on women and youth, to identify and address knowledge and capacity priorities, needs, gaps and solutions;

(ii) promoting dynamic learning, sharing and adaptation for more efficient and effective implementation and improved project and programme performance;

(iii) supporting analytical work to inform policies and public expenditure;

(iv) strengthening IFAD's role and reputation as a source of knowledge, expertise and know-how.

45. This COSOP assumes that monitoring and evaluation and knowledge management, learning and sharing will form the foundation of learning for change and thus provide the "umbrella" framework for the theory of change that underpins the country programme (Appendix VIII).

Knowledge management

This section provides guidance on how to develop and implement a KM programme. It should not be seen as prescriptive. The programme, including its objectives, activities and expected outputs and outcomes, should be more fully developed in-country, by the country programme team and project staff in consultation with key stakeholders, including partners and representatives of IFAD target groups.

I.Introduction

Knowledge management (KM) plays a pivotal role in the country programme, linking the experience, lessons and evidence emerging from investment projects to policy engagement and scaling up efforts.
Better quality learning in the country programme can broaden and deepen IFAD's capacity to scale up successes - supported by multi-stakeholder consultation, analytical work and targeted development of technical knowledge in the thematic areas of the COSOP's strategic objectives, as well as monitoring and evaluation that provides evidence of results and impact.

But to be effective, KM cannot function as a set of activities in isolation from other non-lending activities, or from the investment projects. KM, policy engagement and partnerships, including with target groups and through south-south collaboration, are inter-dependent and mutually reinforcing, and together complement and strengthen the projects.

Additionally, the KM programme should respond to the knowledge and capacity needs and priorities of IFAD's target groups. This will require inclusive approaches to ensure broad consultation.

In order to support achievement of COSOP and project strategic objectives, KM needs to be understood as a process of continuous learning and improvement involving all members of the country programme and project teams, as well as key stakeholders, who try out new ways of doing things, reflect, document and share their knowledge and experiences, and then change and adapt their projects/initiatives to become more effective and successful.

Seen in this way, KM can also complement and strengthen efforts towards delivery, development effectiveness and excellence. For example, managing knowledge more effectively can lead to efficiency gains as the costs of repeating mistakes and reinventing the wheel, in terms of money and time, are avoided.

Therefore, KM is more than simply a set of activities, approaches and tools, and it is about more than managing information through data banks and document repositories – although these aspects are also important.

IFAD's own operational procedures for country strategies underline the central and essential role of the KM system in a country programme, stating that it provides the critical link between the investment programmes and non-project activities. KM is necessary to generate and share knowledge from operations, and to learn from IFAD's own and other experiences in order to improve. KM aims to advance technical and policy related aspects in the country programme and generate more effective instruments, through feedback across portfolios and regions for poverty reduction and food security.

This is consistent with the findings and recommendations of IFAD's Independent Office of Evaluation (IOE) in recent years, in corporate-level and synthesis evaluations, the 2016 ARRI and in the 2017 Mozambique Country Strategy and Programme Evaluation.
The 2017 CSPE notes that that weaknesses in monitoring and KM have indirect bearing on the potential sustainability and up-scaling of projects' results. It found that, although some progress had been made on KM in recent years – in part thanks to the commitment of the main partner in the Government, the National Directorate of Treasure in the Ministry of Economy and Finance – it remained a "fuzzy concept" for some project management units. Further, human resources in the ICO were far too thin to allow significant progress on KM and policy dialogue during the period under evaluation.

The CSPE recommends that more attention and resources from project and ICO budgets be devoted to non-lending activities, singling out KM and policy dialogue in particular, and starting from sound M&E systems.

Further, it recommends development of a KM Strategy "closely anchored to key COSOP elements and to those project components that can usefully be up-scaled". The Strategy should identify appropriate KM processes to enable evidence-based issues and results to be fed into policy dialogue processes at a high strategic level.

Such KM processes may include: documentation – targeted knowledge products that can provide an evidence base that speaks to the specific needs of policy makers, by which projects and IFAD itself can contribute to country-level policy processes[73]. These products might include reports, briefs, articles in the media. They could also include events, for example an annual knowledge and learning fair.

[73] How to incorporate policy engagement in a COSOP: country-level policy engagement toolkit, page 2.

II. KM purpose, objectives and expected outcomes

The overall purpose of knowledge management is to help IFAD in Mozambique build a credible knowledge base of practical and actionable know-how that leads to improved performance and results in the country programme, and scaling up of successes for inclusive and sustainable rural transformation.

The IFAD Country Office, in close collaboration with projects, the Government, local institutions, communities and other partners, will develop and lead an integrated approach to KM that supports achievement of the COSOP strategic objectives by:

(iv) promoting broad consultation with IFAD target groups, with a specific focus on women and youth, to identify and address knowledge and capacity priorities, needs, gaps and solutions;
(v) promoting dynamic learning, sharing and adaptation that leads to improved project and programme performance, including more efficient and effective implementation;
(vi) supporting analytical work to inform policies and public expenditure;
(vii) strengthening IFAD's role and reputation as a source of knowledge, expertise and know-how.

Expected outputs could include:

- Regular learning events (project learning days; country programme team meetings; country programme implementation reviews, etc.)
- Annual knowledge and learning market (multi-stakeholder policy engagement platform)
- Information materials and training for target groups based on needs assessments
- Thematic networks/CoPs
- Documented lessons and best practice
- Other knowledge products to support policy dialogue, advocacy and visibility
- Knowledge partnerships with local universities
- KM capacity building initiatives

Expected outcomes could be:

- Operational effectiveness and efficiency are improved.
- Best practices and lessons learned are consistently integrated into design of new projects and disseminated across the portfolio and to partners.
- Needs and priorities of target groups more consistently addressed through knowledge and learning initiatives including targeted training.
- Successful experiences are scaled up based on solid evidence-based and technical knowledge on what works and why.
- IFAD is a recognized source for quality information and approaches to sustainable rural development.
- Capacity to access and use lessons, good practice, experience from partners and other countries is strengthened.
- Information management in projects and the ICO supports efficiency in operations.

III. Implementation

This draft outline for a KM strategy provides broad guidance for the ICO and projects on an integrated KM approach for the country programme that would act as an umbrella for project KM, and would support learning across projects, with stakeholders, partners and the Government. This would in turn support achievement of the COSOP strategic objectives – and ultimately sustainable and inclusive rural transformation.

It recommends a more integrated approach to KM that connects project learning activities and M&E systems, and non-lending activities into a learning system for the entire country programme.

The learning system will connect all levels – from the community to PMU to ICO to Government and other partners. It will also connect KM and learning across thematic and geographical areas. It will connect the Mozambique country programme to external knowledge sources, and at the same time promote sharing of knowledge emerging from the country programme with broader audiences.

At the same time, this draft strategy outline identifies a small number of specific new and ongoing activities, approaches and mechanisms to promote more systematic learning and sharing at all levels of the country programme, and through all stages of the project cycles (see next section). Other activities will be identified by the country team to address specific needs as they arise. It also draws on experience and recognized good practice in other countries.

However, in order to fully integrate KM into the country programme, it is fundamental that it makes sense to the ICO and project staff responsible for its implementation. They need to understand what it means in practice in their daily work, and how it will contribute to achievement of strategic objectives, and to improved performance in implementation. This is likely to happen only if ICO and project staff, stakeholders and partners are involved in developing the KM strategy and plan.

Therefore, it is recommended that this strategy outline be used as a starting point for the country programme management team (in-country CPMT: ICO and project staff and partners) **to work together to further develop the KM Strategy, and to develop annual learning plans that will guide implementation of KM activities.**

If the ICO and projects invest in KM, it is crucial to demonstrate that it is adding value. To this end, a number of indicators are proposed for monitoring & reporting on progress towards the expected outcomes (see KM Results Framework below). The aim is to avoid adding undue new monitoring and reporting requirements by integrating KM monitoring to the extent possible not existing monitoring systems.

As per the CSPE recommendation, sufficient resources should be allocated in project and ICO budgets for KM. The CSPE noted that the annual budget of US$ 10,000 for KM in the ICO budget "did not allow much scope for action". Roles and responsibilities for KM must be assigned, and training provided if necessary to ensure that individuals with KM responsibilities have the capacity to oversee implementation of learning plans.

IV. Activities, approaches and tools

The 2011 Mozambique COSOP made provision for a programme-level monitoring system, fed with information from projects that would in turn feed through KM work into policy dialogue. The COSOP completion review noted that this did not happen. Nonetheless, a number KM-related activities have been implemented in recent years, as noted by the CSPE. Of particular note are the following:

- The Pro-poor Value Chain Development Project in Maputo and Limpopo Corridors (PROSUL) has focused on capturing and applying lessons during implementation and adapting approaches accordingly. It is also conducting studies and preparing documentation. For example, the project coordinator, Daniel Mate, presented a paper during a World Bank Conference on Land and Poverty in March 2017 on the preliminary results obtained by the project in securing land tenure rights for smallholder farmers. PROSUL is also investing in communications, advocacy and awareness raising initiatives to build visibility of project achievements in-country.

- The MDG 1c IFAD sub-Programme has a strong, well-funded KM and communications component, which provides a good example of collaboration between the ICO and the Government. The Programme "Accelerate progress towards MDG1 C in Mozambique" (MDG1 C) is funded jointly by the Government of the Republic of Mozambique, the European Union and the three Rome-based United Nations Agencies (IFAD, FAO and WFP). The IFAD sub-programme's KM work, coordinated by a specialist based in the ICO, has resulted in analysis of good practices in the country programme. Results and success stories have been documented and shared widely, using high quality templates and communications guidelines developed by the programme's overall coordination unit.

The country programme KM Strategy should also provide an overarching frame to connect KM and learning-related activities planned or already being implemented by IFAD-supported projects and partners, as detailed in the strategies included in this COSOP for SSTC, targeting, gender and social inclusion, and for nutrition. It should also integrate the activities, expected outcomes and indicators proposed in the SECAP under priority area 5: Knowledge management and learning for climate change adaptation and sustainable land and water management.

Following is a selection of options for **new or expanded approaches and activities** for adoption in the country programme:

- **Multi-stakeholder consultation** to determine the knowledge and information needs of target groups, particularly women and youth, across the thematic areas addressed by the COSOP strategic objectives. This should cover needs for technical training and information resources.
- Regular (as feasible) **implementation review and reflection meetings** of ICO and PMU staff to promote sharing and discussion of issues, challenges, lessons and solutions. The meetings could each be hosted by a particular project. They may focus on challenges specific to the host project, as well as common challenges, and could be held in conjunction with a field visit.
- The implementation review meetings could be complemented by **project learning days,** organized by individual projects in collaboration with implementing partners, including local institutions and stakeholders. The purpose would be to highlight and discuss issues, challenges and solutions, as well as to give visibility to successes.
- **Annual Country Programme Review meetings** organized by ICO staff, with representatives of active loans and selected grants, government and partners. The purpose would be to reflect on and improve implementation and share lessons among loan and grant projects, and partners.
- An annual two-day **Knowledge & Learning Market** organized by the ICO. This event would be based on a similar initiative organized by the Philippines ICO. The market was recognized in IOE's Philippines CSPE as an example of leading practice that "is a pioneering contribution to KM and policy engagement, and serves as a model of engagement for regional and global levels". The market would act as a multi-stakeholder rural development platform to showcase experiences, best practice, successful approaches and evidence of results emerging from the IFAD country programme – with the aim of influencing government policy and public expenditure in the rural sector.
- Development of **knowledge products** to serve diverse needs, including: to feed issues, lessons, evidence into policy discussions; to share lessons and good practice across the portfolio, with partners, local organizations and project participants; to give broader visibility to lessons and successes emerging from the country programme.

- **Joint learning approaches to action research** and documentation. This would involve participation of communities, local organizations and other development partners in the identification of areas for action research, and on participatory research approaches and methods. As noted in the M&E appendix, participating communities and organizations would be involved in putting the action research results into practice.
- Engagement with relevant national research institutions and universities to conduct **analytical studies, baseline studies** etc.
- **Training** of ICO and project staff to build understanding of and competency in KM, and to build capacity in KM approaches and tools - through grant-funded initiatives[74] and the IFAD Operations Academy (for ICO staff only).
- Use of **communities of practice and thematic networks** to provide a forum for ongoing discussion and learning, for example for gender focal points and M&E officers. These would be moderated, fully linked to work processes and structured around specific issues and challenges.

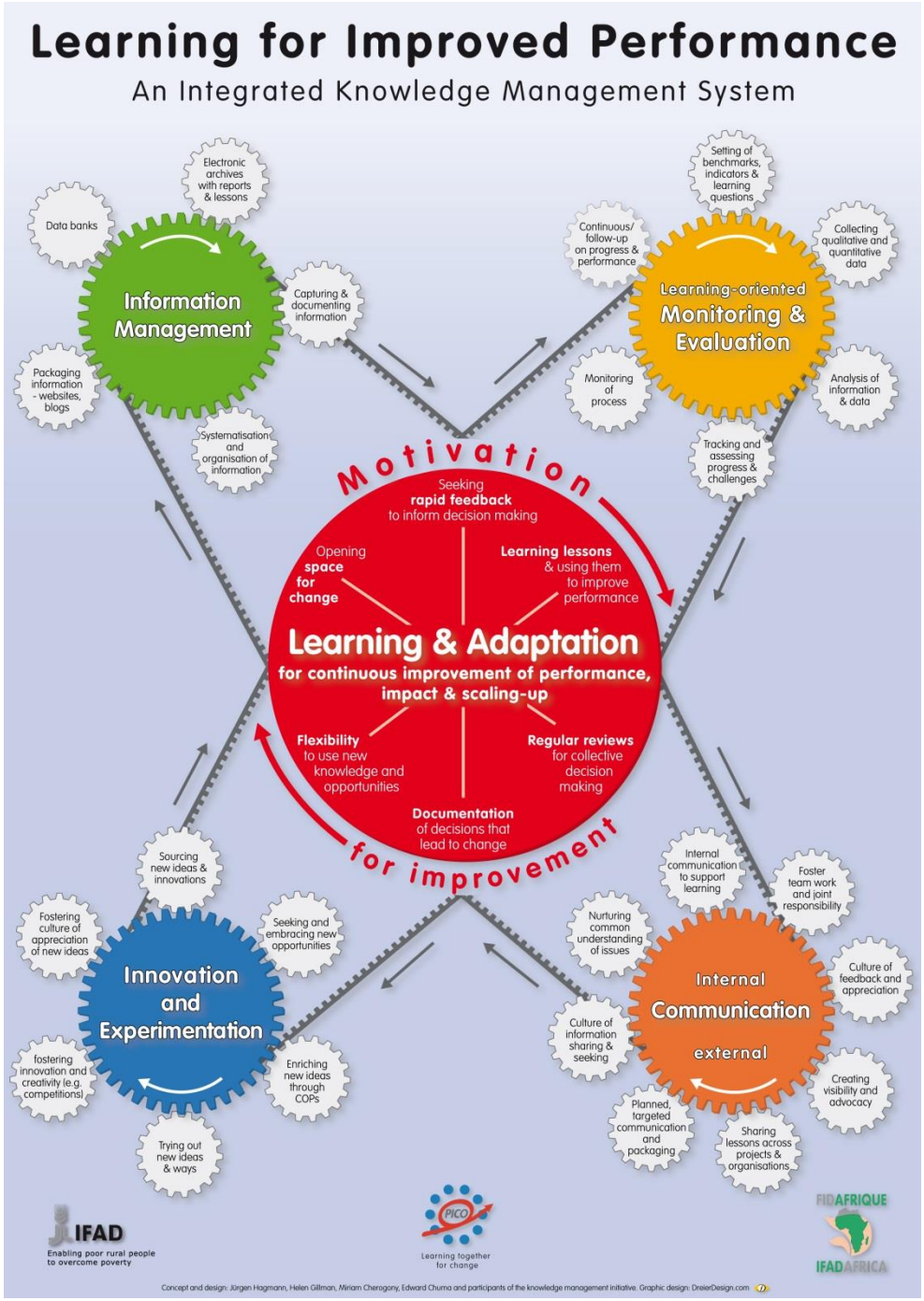
An **integrated KM system**, developed during a four-year IFAD grant-funded action learning initiative in ESA region, is proposed as a model for the country programme KM approach.

The system evolved from the concrete experiences of staff from more than 30 development projects, and their understanding of the relevance of KM to their day-to-day work. The system's driver is motivation to change and improve.

Four inter-connected functions form the foundations of the system: information management, monitoring and evaluation, communication and innovation, which together support rapid learning and adaptation and scaling up (see Figure 1 next page).

[74] Grant programmes include: Training and global certification framework for M&E and impact assessment in rural development, CLEAR Initiative; Capitalizing on experiences for greater impact in rural development, CTA: Strengthening capacities and tools tool scale up innovations, Procasur.

Figure 1: Model for an integrated KM system



KM Results Framework

Country strategy alignment	**Key results for KM in RB-COSOP**		
Knowledge management (KM) plays a pivotal role in the country programme, linking the experience, lessons and evidence emerging from investment projects to policy engagement and scaling up efforts. The overall purpose of KM is to help IFAD in Mozambique build a credible knowledge base of practical and actionable know-how that leads to improved performance and results in the country programme, and scaling up of successes for inclusive and sustainable rural transformation. The IFAD Country Office, in close collaboration with projects, the Government, local institutions, communities and other partners, will lead a strategic and integrated approach to KM that supports achievement of the COSOP strategic objectives. The approach recognizes that KM, policy engagement and partnerships, including south-south collaboration, are inter-dependent and mutually reinforcing, and together complement and strengthen the projects. Better quality learning in the country programme will broaden and deepen IFAD's capacity to scale up successes - supported by analytical work and targeted development of technical knowledge in the thematic areas of the COSOP's strategic objectives, as well as monitoring and evaluation that provides evidence of results and impact.	**KM strategic objectives**	**KM outcome indicators**	**KM outputs indicators**
	SO1. Promote dynamic learning, sharing and adaptation that leads to improved project and programme performance, including more efficient and effective implementation	- 80% of project concept notes are positively assessed at OSC for extent to which they draw on previous experience and lessons, and include quantifiable supporting data. - 80% of new projects have a well-articulated KM and learning approach at design. - ICO & project staff have the capacity and tools to capitalize and document lessons and good practice. - ICO and project staff say improved information management systems enable them to work more efficiently. - 80% of PCRs include well-documented best practices and lessons	- # of learning events annually. - # thematic networks/CoPs adequately resources and helping to deliver on COSOP and project objectives.
	SO2. Support analytical work to inform policies and public expenditure.	- % of projects rate 5 and above for innovation and learning at completion.	- # of policy-relevant knowledge products completed (RIMS) - # knowledge partnerships with local universities/research bodies.
	SO3. Strengthen IFAD's role and reputation as a source of knowledge, expertise and know-how.	% of partners indicating that they work with IFAD because of its policy advice or its specialist knowledge in a certain domain	Participation in annual knowledge and learning market

Knowledge Management, Learning & Sharing

Challenges and Assumptions

- Access to water and land will improve nutrition, increase production, enterprise development and employment opportunities in rural areas
- Need more time (especially women): that time freed up will be used for economic activities
- Resources: by providing access to resources will reduce the impact of shocks and increase equity for women and youth
- Skills development, information and knowledge – will be used to increase food security, dietary diversity & incomes
- Access to decision making: that decisions will be more beneficial &inclusive
- Reducing impact of climatic events: will build sustainability & income continuity
- Gender equity/inclusivity: that shared decisions/workload will be beneficial both for households and communities
- Natural resource management: will enable longer term use of natural resources

INPUTS

- Empowerment processes
- Gender strategies
- Knowledge on nutrition for production and consumption
- Capacity building on financial literacy and SMME entrepreneurship
- Capacity building on climate resilience, NRM
- Production technologies
- Organizing in formal groups
- Capacity building of institutions / service providers
- Coordination between private sector, government, and development agencies

OUTPUTS

Equitable access to:

- Water for production and social needs
- Natural and productive resources
- Secure land
- Finance availability
- Increased production and productivity
- Technology and Innovative practices
- Markets and information
- Business development
- Partnerships and Farmer Organizations
- New enterprises of all sizes
- Enabling Policy/Advocacy environment

SHORT TERM CHANGES

- Access to water (production and social)
- WUAs established & sustainable
- Access to secure land
- Improved agricultural , financial & business skills
- Stronger stakeholder collaborations
- Increased access to adequate quantity & quality of food
- Added product value
- Increased resilience & environmental awareness
- Practicing NRM
- Formalized farmer groups

MEDIUM TERM CHANGES

- Food security & dietary diversity increased with reduced stunting;
- Increased investment in land, production and enterprises
- Access to financial services for all their needs;
- Smallholders' have partnerships that are positive and productive;
- Minimal post-harvest losses through climate resilient infrastructure
- Agro-processing activities, new jobs (fulltime to seasonal) in rural areas;
- Sustainable service providers;

LONG TERM CHANGES

SO 1: Outcome

Increased access to water and land has provided food security and diversified diets – through investing their time and money in their land /enterprise to increase their livelihood returns sustainably through NRM

SO 2: Outcome

Partnerships have increased livelihoods/incomes through production, employment and / or enterprises with sustainable climate resilient infrastructure

SO 3: Outcome

Financial inclusion, has provided access to innovative financial products meeting the needs of the various target groups, their livelihoods / enterprises.

IMPACT: ***Inclusive rural transformation has enabled rural poor women, youth and men to have sustainable livelihoods, reduced malnutrition and escape poverty.***

Contributing to Government's priorities, IFAD SOs and the SDGs

Targeting, Gender and Social Inclusion Strategy 2018-2022

A. Rural development and Poverty Context

Current GDP projections indicate slower growth rate, about 3.6per cent, mostly due to macro-economic crises triggered by the country's failure to disclose loans to state owned companies, open political hostilities and lower world prices for coal and gas. This crisis period was however preceded by decades of positive economic growth (7per cent) growth, driven by capital-intensive *extractive* mega-explorations in mining and natural gas. This growth has however not translated into broad socio-economic gains for the majority of the population. In fact, the share of agriculture in GDP has gradually declined significantly from 30 percent in 2009 to 25 percent in 2015,[75] despite the sector's role in providing employment for about 72 percent of the economically active population.

Mozambique is considered the world's 36th-largest country with a surface area of 801,537 square kilometres. It has about 36 million hectares of arable land, suitable for agriculture. At present, approximately 3.9 million hectares, which make about 10per cent of the arable land, are under cultivation mostly by smallholder farmers (97per cent)76. Despite abundant land availability, expansion of agricultural production is limited by constraints such as labour, suitable farming system based on agroecological zones, absence of draught power and access to water.

The country is divided into 10 administrative provinces, organised into three regions, which exhibit the highest population and poverty rates in the country. Mozambique's population is estimated at approximately 27 million. Population density is 35.6 people per square kilometre, with 70 percent of the population residing in rural areas.[77] Projections by the Instituto Nacional de Estatística (INE) suggest that by 2022, the population will have increased to about 30 million, with two thirds of this population residing in rural areas. The central and northern provinces have the highest population density, with strong agricultural potential, fertile soils and more abundant rainfall than other parts of the country, and they generally produce agricultural surpluses. The central regions bordering the south are drier and more prone to natural disasters such as droughts and floods. These areas - together with coastal communities, which suffer extreme isolation – are the poorest in the country.

North			Central				South		
Niassa	Cabo Delgado	Nampula	Zambezia	Tete	Manica	Sofala	Inhambane	Gaza	Maputo

National poverty has reduced: The recent National Poverty Assessment[78] indicates that poverty has reduced from 54.2 percent in 2008 to about 49.2 percent in 2014 (table 1). This is further confirmed by the multidimensional poverty situation based on non-monetary dimensions[79] i.e. almost half of the population was categorised as deprived in all six dimensions[80] in 1996-97, by 2014/2015 this deprivation had reduced to about 14 percent.

National poverty reduction was mainly driven by the drastic reduction of poverty in the Southern (21per cent) and Central regions (12per cent). This can be partly attributed to urbanization in the Maputo province and the increase in off-far, activities, such as tourism (in the South), mining and gas explorations. However deeper

[75] World Bank WDI (Extracted July 2017)
[76] FAO Mozambique Factsheet -http://www.fao.org/fileadmin/templates/tc/tce/pdf/Mozambique_factsheet.pdf
[77] National Statistics Institute (INE)
[78] Poverty and Well-Being In Mozambique: Fourth National Poverty Assessment (IOF 2014/15)
[79] Poverty And Well-Being In Mozambique: Fourth National Poverty Assessment (IOF 2014/15)
[80] *first level primary school, no access to safe water, inadequate sanitation, grass roofing, no electricity, and very limited possession of durable goods*

analysis is required to better understand the contribution of the agriculture sector to the overall poverty reduction in the South.

Poverty has a rural face: Poverty remains high in rural areas where the bulk (70 per cent) of the population lives, and over 50 percent of them live below the poverty line. Compared to urban areas, the reduction in poverty in rural areas has been marginal. Since 2002, rural poverty has remained well above 50 percent while poverty in urban areas has reduced by almost 10 percent in the same period.

Table 1. National Distribution of Poverty (in per cent)

Area	IAF 2002/03	IAF 2008/09	IAF 2014/15	Difference (02/03 – 08/09)	Difference in (14/15 – 08/09 in per cent)
National	54.1	54.7	49.2	0.6	-5.5
Urban	51.4	49.6	40.7	-1.8	-8.9
Rural	55.3	56.9	53.1	1.6	-3.8
North	55.3	46.5	59.6	-8.8	13.1
Centre	45.5	59.7	48	14.2	-11.7
South	66.5	56.9	36.2	-9.6	-20.7

Source: IOF 2014/15

Poverty is geographically concentrated in the Northern region: Inverse to the national trend, poverty has actually increased in the Northern regions, by about 13 percent since 2008. This situation can be attributed to the high increase of poverty in the Zambezia and Nampula provinces, which are the most populous provinces accounting for about 50 percent of the poor, and largely impacted by poor access to education, health facilities as well as formal employment, which makes the region unattractive to investments.

PARPA II has underachieved: The main framework for poverty reduction in the country is the *Poverty Reduction Acton Plan II (PARPA 2011-14*), which aimed at increasing agricultural production and productivity through the promotion of agrarian services, development of small and medium enterprises (SMEs) and investing in human and social development. PARPA envisaged a structural transformation of the agricultural sector through: i) the promotion of agrarian services, increased production and productivity, guaranteed food security, increased income and competitiveness of farmers; ii) natural resource management; and iii) institutional development. An impact evaluation [81]of the contribution of PARPA II to agricultural production and productivity reports that it has not achieved its goal, particularly the targets with relation to irrigation, and farmer's access to price information, agricultural extension, improved seeds and fertilizers.

Mozambique's poor are disconnected from the growth process and inequality is high. Human Development Indicators performance continues to be low with the country. The 2016 Human Development Report ranks Mozambique 181st out of 187 countries. Life expectancy continues to be low at 55.5. The youth unemployment rates are 37.8 percent. The Gini coefficient on consumption has increased significantly from 0.40 in 1996/07 to 0.47 in 2014/15, signifying that the wealthier households are benefiting more than the poor households from economic growth. Recent research on income dynamics has shown that the real median household income has decreased and the distribution of farmers' incomes (income inequality) has become wider between 2002 and 2005[82].

B. Gender equality and Social Inclusion

The socio economic position of women remains weak: Mozambique is ranked 16th out of 52 countries in the 2015 Africa Gender Equality Index, with relatively lower

[81] Benedito Cunguara∗a & Brendan Kellyb () The impact of the PARPA II in promoting the agricultural sector in rural Mozambique

[82] Cunguara and Kajisa, 2009; Mather et al., 2008 quoted in Cunguara∗a and Kelly*b, Trends in Agriculture Producer's Income in Mozambique

performance on human development where it is ranked 35th, among 52 countries. On the Gender Development Index (GDI), Mozambique continues to be considered among the countries with low equality in HDI achievements between women and men (absolute deviation from gender parity of more than 10 percent) - GDI has fallen slightly to 0.79 in 2015, after several years of ranking above 0.80.

Women bear a huge burden due to traditional gender divisional of labour. 52 percent [83] of the rural population are women and 24 percent are household heads. Women are the principal proponents in the conservation, transformation, storage and marketing of food, and key custodians of family welfare & nutritional security. Women experience higher levels of poverty and are characterised by low levels of education, and limited access to productive and financial resources. Women's mobility is often confined to activities and enterprises that can be undertaken closer to the households due to their social standing and role as primary caregivers.

Women's participation in economic activities varies by geographic location. Over 50 percent of the population in the southern regions are women. There is a higher incidence of women-headed households in the South, about one third of each household mostly due to proximity with the urban Maputo and also the migration of males to work in mines in the neighbouring South Africa. Women from the South are therefore more empowered and autonomous than in the North. In fact, more women in the South are likely to start-up small businesses or to be employed as domestic workers in the cities, compared to their counterparts from the Central and Northern regions who predominately work in the fields/agriculture under the supervision of their husbands.[84]

Strong socio-cultural factors can impact negatively on women's participation in economic activities: There are predominantly two different customary affinity systems in Mozambique, patrilineal in the South and Matrilineal in North and centre. Traditionally, under the patrilineal kinship, males hold the moral authority, social privilege and control over property, which significantly disadvantages women's ownership of land. The matrilineal system allows women to access and use land, but ownership is not guaranteed across the Provinces. In fact, women may lose access to their land when they are widowed. Another dimension to the socio-cultural limitations of women is the 'traditional gender division of labour and the resulting time poverty faced by women'. This is corroborated by field study of a rural household in rural Nampula which found that unequal gender division of labour and the resulting time poverty among women can impede the growth of household's agricultural output. The report suggests. In this regard, the report confirmed that women provide labour to their own primary production plots and also support their husband's in the production of cash crops and are also responsible for maintenance of the household and care to the family. It concludes that patriarchal customs do in fact dictate gender roles and responsibilities that place a significantly heavy burden on women [85].

There are gender dimensions to women's participation in value chains:

- ✓ Women are exclusively engaged in **agricultur**e (*central and northern regions*), particularly the production of food crops, which derive less returns compared to higher value cash crops and livestock activities.
- ✓ On **livestock**, women's participation is constrained by cultural norms which restrict women's ownership of cattle (*southern region*). There is more potential for women's inclusion in the development of small livestock such as goats, sheep and chicken.
- ✓ With regard to **fisheries**, women's participation is limited to activities close to shore using basic techniques such as home-made nets or piece, post-harvest handling (processing, conservation), trade of fish and renting out storage equipment to male fisherpersons.

[83] Instituto Nacional de Estatística (INE)
[84] Dias P (2017) Strengthening Mozambique's Food Markets and Intelligence Capacity: Evidence from the 2016/2017 El Niño Crisis in Mozambique, FAO TCIA
[85] Diksha Arora (2014) Gender division of labour and farm production in subsistence households∗

There is relative involvement of women in decision-making: Since 2005 when the first Gender Strategy for the Agrarian Sector (EGSA 2005-2010) was adopted followed by the Gender Policy and Implementation Strategy (PGEI) and the National Action Plan for the Women's Advancement (PNAM), some progress has been made in the agricultural sector in terms of women's access to land, means of production, technologies, agrarian credit and agricultural markets. Observations from the field in IFAD-supported interventions86 corroborated by findings from CGAP (2016)87 also suggest that there is relative involvement of women in decision-making at the household and community levels, and in most cases, the largest share of agricultural decisions are jointly made by men and women, including when households are headed by men. Women generally have some leadership roles in the organizations; these are usually the stereotypical roles of treasurer, secretary or vice-chair/president. Even in women specific groups, the few men admitted in the group usually have leadership roles and talk on behalf of the group[88].

The quality of women's participation in economic activities is still constrained. The share of women in the whole agricultural production chain is still very low compared to their male counterparts, despite the fact that women are the majority of the population employed in the agricultural sector, and their role is confined to the first segment of the food supply chain (i.e. production and post-harvest handling). For example, in 2012, despite women's participation in agriculture as the largest labour force (81.2per cent) compared to men (61.6per cent), only 28per cent of women owned land against 71 per cent of men. Of the producers assisted by the Public Extension Network, 21 per cent women received technical advice against 47per cent of their male counterparts. In terms of credit, 16per cent women received credit against 71per cent men[89].

Positive impacts on women's empowerment remain elusive: The recent *Country Strategy and Programme Evaluation* (2017)[90], reports that despite high levels[91] of women's participation in IFAD-supported development interventions, positive impacts on women's empowerment and on gender equality goals remained somewhat elusive at the community and household levels. A gender audit of the PROMER project attributes this to cultural traditions in areas such as decision-making, power relations, women's mobility, gender division of labour, access and control over assets and benefits - among others. The Evaluation however recommends more efforts to improve gender analysis during planning, implementation and M&E, including for systematically collecting sex-disaggregated data, and raising awareness on the ways in which perceptions of the positions and roles of women can be changed among male and female beneficiaries.

Strong efforts taken to facilitate equality and women's empowerment in agriculture and fisheries sectors: A new *Gender Strategy and the Agrarian Sector Action Plan* (2016-2025) has recently developed under PROSUL, which aims to strengthen mechanisms for promoting gender equality and women's empowerment in the agricultural sector. The strategy takes into account the feminization of primary production in the country, and the deprivations in women's participation which are still prevalent and visible in some segments of the agricultural value chain. The strategy introduces specific actions to remove structural barriers that impede women's participation in productive and remunerative activities. It will also focus on social roles that burden women with family responsibilities, and local customs that restrict women's access to and control over productive resources (land, livestock, credit), as well as their participation in the market, a role that is still given almost exclusively to men. The strategy seeks to promote a transformation in gender relations and economic empowerment through stereotypes of women as agrarian producers of staples, to

[86] Field visits to beneficiaries of PROSUL – Maxixe & Masingire Districts
[87] CGAP (2016) National Survey and Segmentation of Smallholder Households in Mozambique
[88] Gender, Youth and Targeting Working Paper for the Supervision Mission (25th July - 5 August 2017)
[89] Mozambique Yearbook of Agricultural Statistics 2015
[90] Independent Office of Evaluation (2017) Republic of Mozambique Country Strategy and Programme Evaluation
[91] 25 -50 percent depending on project targets

elevating them to community actors and decision makers throughout the chain Value of the agricultural sector.

In the case of Fisheries, several actions have been taken. In 2007, the Gender Unit of the Ministry of Fisheries was created whose role is to ensure gender mainstreaming in the sector's policies and programs. In 2009 The Gender Strategy for the Artisanal Fisheries Subsector (2009-2013) was elaborated, which introduced the disaggregation of statistical data in the sector. The *Gender Strategy and Action plan for the Fisheries Sector* (2015 - 2019)[92] is yet another step towards integrating the gender perspective into the Fisheries sector.

Youth inclusion and empowerment: **Young people are marginalized and peripheral to economic activities in rural areas**: The youth are defined as individuals between the ages of 15 to 35[93]. Mozambique is characterised by a rapidly growing young population with about 45 percent below the age of 15, and a population growth rate of 2.9per cent.[94] The country has a very high birth rate particularly in rural areas where women have an average of 5 children each[95]. Young people are marginalized and peripheral to economic activities, despite rural youth accounting for 69 percent of the total population in Mozambique. The marginalization of young people is a result of many factors including cultural attitudes which exclude them from decision-making processes and the attractiveness of farming to rural youth..

According to IFADs Rural Development Report (2016), "young people are a heterogeneous group, and not all are excluded or disadvantaged". They represent diversity and wide differences such as gender, class, education, geographic location (rurality etc.). Even in the case of rural youth, there are differences in their association to the agriculture sector, i.e while some will remain on the farms, others will exit farming. The young people who remain in farming face similar challenges like the poor rural producers, particularly in modernizing and meeting the market demand. Young people are generally not attracted to the types of farming practiced in rural areas due to rudimentary techniques with low productivity and income, motivating many of them to migrate to the cities in search of employment. For those that exit agriculture, their main challenges relate to employability and entrepreneurial capacity. This group is characterized by lack of livelihoods due to unemployment and underemployment (80per cent) - with most of them engaged in the informal market and as seasonal labour on small farms.

The ***gender dimension*** also provides critical insights. The majority the youth population in rural areas are female[96]. Their situation is even more desperate, due to traditional and cultural norms which further exclude women from political, social and economic structures. In contrast to their male counterparts, young women are more likely to be illiterate (60per cent) than men (30per cent).

Several policy programmatic approaches exist in the country to promote youth inclusion in economic activities; however there is dispersion across different ministries with limited harmonization. The National Youth Policy and Strategy (2014-2023), implemented through the Ministry of Sport and Youth promotes the participation of young people in groups and initiatives related to entrepreneurship. The National Youth Incubation in Agriculture Programme (NYAIP) was developed to assist the Government of Mozambique (GoM) and in particular the Ministry of Agriculture and Food Security (MASA) to create decent employment opportunities for young people in rural areas through: i) the strengthening of their capacity and entrepreneurial skills, ii) the promotion of investment in agriculture and also iii) the promotion of Small and Medium Enterprises (SMEs) along selected agriculture value chain. MASA has also developed a Program for the Inclusion of Youth in the Agrarian Sector which prioritises, i) youth employment; ii) increased

[92] Estratégia De Género E Plano De Acção Do Sector Das Pescas
[93] Ministry of Agriculture and Food security
[94] National Statistics Institute (INE)
[95] UNICEF
[96] INE: 2007

productivity in the agricultural sector; and iii) increased competitiveness and promotion of agri-business.

HIV/AIDS: **HIV/AIDS prevalence remains a significant challenge for the Mozambique Government**. HIV continues to impact on productivity with high prevalence (10.5 percent[97]) among the productive age group of 15 - 49. Overall, HIV/AIDS retards agricultural production, and threatens food security as the affected often lack manpower at crucial moments of agricultural productivity.

HIV affects the availability of household members to engage in productive livelihoods: An estimated 441,000 children [98]in Mozambique had lost one or both parents to AIDS. In such cases, HIV/AIDs affect the availability of household members to engage in productive activities, particularly the elderly women who substitute the role of the caregivers to tend to the sick & orphaned grandchildren. Children can also be forced to increase farm labour contribution & and dropping out of school.

Adverse impacts of HIV/AIDs on agricultural productivity include i) decrease in labour, ii) depletion of household resources, iii) reduction of the cultivated area; iv) minimal soil conservation measures; v) decreases in productivity; vi) abandonment of cash-crop production in favour of food or subsistence crops; & vii) less intensive livestock production, which can result in a less varied and less nutritious diet.[99]

Due to the high prevalence (60 percent) among women, there is feminization of the disease. Girls and young women are more vulnerable than young men – there is high prevalence among females aged between 15 and 24 at 4 percent, compared to 2 percent for young men. The vulnerability of young women and girls is a result of gender inequalities, traditional and social norms such as early marriages, low levels of education, poverty and exclusion from economic opportunities and low levels of education. [100] In the particular case of women, traditional land tenure systems may leave some households without land - women can lose access to land and assets, labour, inputs, credit, and support services.

The Country programme evaluation highlights the need to integrate People Living with HIV in the value chains, ASCAs or even in the capacity development efforts on nutrition, functional literacy in future project interventions and also to consider interventions that promoted workload balance between men and women. There is need to focus attention on vulnerable households to address i) stigmatization which leads to discrimination and exclusion from economic activities and ii) develop specific inclusive interventions. In this regard, this COSOP pays special attention to people with disabilities, including those maimed by landmines in rural areas during and after the wars

C. Rural Livelihoods Assessment

The majority of the population in Mozambique reside in rural areas and derive their livelihoods from smallholder farming. PEDSA[101] 2010 -2019 classifies the farming population into three main groups i) smallholder farmers (who cultivate less than 2 ha of land) and represent 99 percent of farming households in Mozambique, ii) medium (emergent) farming households and iii) large commercial farms. The Strategy considers both the small and medium farming households as representing Rural Households. The highest number of small farms is located in Nampula, Zambezia and Maputo, representing 56 percent of the total farmers. Small holder farms are farmed by 4.3 million subsistence farmers, who contribute 99 percent in the production of crops such as maize, rice, cassava, and livestock.[102]

[97] UNAIDS 2015
[98] UNAIDS 2015
[99] Isolde Prommer, Agriculture And HIV/AIDS In Mozambique: A Discussion
[100]Mozambique HIV Prevention For Girls And Young Women, Report Card
[101] Strategic Plan For Agricultural Development PEDSA 2010- 2019
[102] http://www.new-ag.info/en/country/profile.php?a=855

Table 2: Farm Size Distribution

Farm Size Distribution by Region/Province (IAI 2015)				
Region	**Provinces**	**Small**	**Medium**	**Large**
North	Niassa	168926	341	5
	Cabo Delgado	414029	4436	21
	Nampula	739457	3222	34
Central	Zambezia	688439	1452	23
	Tete	358210	8520	40
	Manica	194036	3829	52
	Sofala	228983	3113	77
South	Inhambane	199354	13603	36
	Gaza	194669	10068	167
	Maputo	775971	3288	273

Smallholder farms range between one and two hectares. Smallholders are largely concentrated in the central region of the country (49 percent), while one-third (34 percent) reside in the northern region, leaving the smallest population of smallholder farmers in the southern region (18 percent).103 With regard to age, they are represented by both maturity and youth as almost 50 percent of rural households are under the age of 40, while about one fifth is below the age of 30.

In terms of household characteristics, smallholders are poor (due to the above-mentioned high levels of rural poverty), with relatively larger families which translates into high numbers of dependents. The head of households are often illiterate and/or with low levels of education. The Agriculture Survey also indicates high disparities between Maputo and the rural regions on illiteracy rates. Maputo also has significantly lower levels of illiteracy (9 per cent), while the other regions are all above 30 percent. Illiteracy of the head of household is a persistent challenge, higher in the North and the Central regions, and a very small percentage (2 per cent), can actually read and write.

Table 3: Characteristics of Households

Characteristics of Households (AIA 2015)										
Characteristics	North			Central				South		
	Niassa	Cabo Delgado	Nampula	Zambezia	Tete	Manica	Sofala	Inhambane	Gaza	Maputo
Average age of HH	40.5	41.4	40.2	40.6	41.8	43.7	43.6	47.9	47.9	44.8
Female -headed HH per cent	32.3	30.9	21.3	28.7	27.9	25.3	28.1	40	39.4	32.3
Wage employment per cent	40.9	39.9	33.2	37.2	36.4	36	51.1	40.6	58.5	61.1
Self-employment per cent	52.6	55	55.9	49.9	41.9	61.5	56	51.1	50.9	65.1
Illiteracy (HH head) per cent	43	37	39	30	47	31	39	36	35	9
Read and Write (HH) per cent	6.5	0.3	0.5	3.7		1.4	0.4	0.2	1.1	1.4
Average number of HH members in 15-29 age group	1.3	1.1	1	1.1	1.2	1.7	1.6	1.1	1.6	1.2

Source: Agriculture Survey

Smallholders produce for consumption, with the possibility to derive a surplus for market. They mostly sell their produce at the farm-gate and to local aggregators and middle-men who are connected to wholesalers and retailers in urban markets. Overall, the price at the aggregation point is very low, and at times, even below the cost of

[103] CGAP (2016),

production. This is partly attributed to the weak bargaining power of smallholder farmers and their need for cash to meet immediate financial obligations. Smallholder farmers can only increase their bargaining power if they can organize themselves into farmer organizations or cooperatives (SACCOS).104

Key characteristics of smallholder farmers[105]:

- ✓ Smallholder farmers are largely self-financing and are predominantly subsistence oriented, producing mostly for family consumption, with occasional surplus. Their production is characterised by low yields and very modest income gains.
- ✓ They derive the bulk of their household income from farming and most of the households live at or below the poverty line, and many live in extreme poverty.
- ✓ Obstacles hindering small holder productivity include unpredictable and extreme weather conditions (floods 7 drought), reliance on rainfed farming, limited access to quality and modern inputs, low levels of mechanisation, poor road and water infrastructure, inadequate post-harvest techniques, high levels of informality, limited access to remunerative markets and market information, and inability to access financial services.
- ✓ Subsistence farmers are mainly motivated by consumption, hence they mostly grow food and staple crops. The most common crops grown by small farmers include maize, cassava and to a lesser extent beans, groundnuts, sweet potatoes, and cowpeas. Livestock production is higher in the south where rangeland areas are available for goats and cattle production.
- ✓ Most smallholder farmers sell their produce directly to local informal traders, usually at the farm gate o local market. Less than half get the current market price for their goods due to lack of access to markets and inability to transport their produce to bigger markets.
- ✓ Mozambican smallholder farmers individually own their plots of land, either through a lease or certificate or under customary law. Almost half of these farms fall under customary law which means there is usually no official documentation of ownership. State and communally owned farms are in the minority, and mostly concentrated in the southern and central regions.

The conditions of smallholder farmers remain unchanged: Despite the reported reduction of poverty at the National level, the conditions of smallholder farmers remain unchanged. Smallholder farmers in Mozambique largely practice rainfed agriculture and use traditional varieties of crops, low-intensity fertilizer, and minimal pesticides. Farming is largely done without mechanization and productivity of the land is typically low106. Access to extension services is very weak at about 5 percent across the country.

High vulnerability to weather and climatic shocks: Mozambique ranks third among the African countries most exposed to multiple weather-related hazards, suffering from periodic cyclones, droughts, floods, and related epidemics. Drought occurs primarily in the southern region, with a frequency of seven droughts for every 10 years. Floods occur every two to three years, with higher levels of risk in the central and southern regions.107 Smallholder farmers are the most vulnerable to such weather phenomenon. Over the past two seasons, farmers in Inhambane and Gaza reported production losses of over 80 percent of their production. Floods have mostly affected farmers in the Nampula and Zambezia Provinces with about 50 percent losses reported in 2015. Pest and diseases are more prominent in the Northern region, with farmers in Niassa and Cabo Delgado reporting losses of about 40 percent108. An estimated 459,000 farmers

[104] Dias, P (2017) Strengthening Mozambique's Food Markets and Intelligence Capacity: Evidence from the 2016/2017 El Niño Crisis in Mozambique, FAO TCIA
[105] Extracted from CGAP (2016) National Survey and Segmentation of Smallholder Households in Mozambique
[106] CGAP (2016) National Survey and Segmentation of Smallholder Households in Mozambique
[107] Global Facility for Disaster Risk Recovery – Mozambique Country Profile https://www.gfdrr.org/sites/gfdrr/files/region/MZ.pdf
[108] IAI 2015

were affected by the recent El Nino drought,109 which left over 1.5 million people in need of assistance and about 95 000 children suffering from acute malnutrition.

Table 4: per cent Production losses by Cause

per cent Production losses by Causes (IAI 2015)										
Region	North			Central				South		
Provinces	Niassa	Cabo Delgado	Nampula	Zambezia	Tete	Manica	Sofala	Inhambane	Gaza	Maputo
Drought	24.5	29.9	14.3	26.8	42.7	55.5	58.7	88.7	89	26.5
Floods	24.9	29	52.6	65.2	25.1	3.8	24.8	0.8	3.2	5.6
Cyclone	4.2	1.3	2.8	5.9	2.5	1.1	4.6	0.6	0.3	8.6
Wild animals	44.1	20.5	7.9	8.4	20.7	8.6	15.2	9.6	13	1.6
Pests & Diseases	39	40.5	27.8	29.1	36.3	20.4	37	26.1	48	6.6

Rural areas in the South are also affected by severe water stress. Evidence in the IOF (2016) suggests that less than one third of all households in the rural Centre and rural North has access to a safe water source. Access to safe drinking water remains a major concern in rural areas, with a large difference between urban coverage (80per cent) and rural coverage (35per cent). 110

Small-scale and artisanal fisheries remains under-developed: A considerable number of rural people also derive their livelihoods from the fisheries sector, where about 334,000 people in Mozambique are engaged in different activities from fishing, processing, distribution, and sales. Small-scale fishers produce over 80 percent of the annual catch, which is consumed locally. Although fisheries management institutions are strong, the small-scale sector is still under-developed and a number of challenges exist i.e. decreasing stocks due to poor management and illegal fishing practices; pollution from extractive industries; conflicts between fishing communities and industrial vessels; and climate change. The following strategies are prioritised to improve small-scale fisheries management: decrease illegal fishing practices; increase financial support for marine conservation and fisheries co-management; improve cooperation, communication, and information sharing between marine park officials and fishing communities; develop strategies to help fishing communities adapt to climate change; and ensure effective information sharing and community engagement in environmental impact assessment processes related to the extractive industries and large-scale infrastructure projects. 111

Emergent farmers are drivers of change and innovation in rural areas: This group remains elusive, particularly with respect the actual farm size and nature of activities, due to challenges in monitoring farm structural changes, disaggregated flow of marketed surplus and their overall contribution towards the smallholder sector through multiplier effects. There is however an emerging thinking that this group includes a new generation of 'lead' farmers who run commercial farming enterprises on plots sizes between 3 and 20 hectares112. These farmers are profitable, and make informed decisions based on the needs of the market. They are usually more educated than their smallholder counterparts, and effectively play the role of 'innovation and change agents', and are in a position to adopt and/or adapt innovations. Through their commercial enterprises, emergent farmers often provide remunerative employment to the poorer segments in rural communities. Emergent farmers are generally considered as households that have

[109] Mozambique: Drought Office of the Resident Coordinator, Situation Report No. 4
[110] UN Water
[111] Artisanal Fisheries Promotion Project (PROPESCA) 2011
[112] In other contexts, this can range from 10 to 100 hectares (Jayne TS et.al (2016), Africa's Changing Farmland Ownership: The Rise of the Emergent Investor Farmer)

successfully managed to expand their operations into medium-scale status, and/or those that primarily resided outside the area and acquired land either through purchase or agreements with traditional authorities (lateral entry) [113].

Rural household enterprises are increasingly recognized as a coping strategy in rural areas. Household enterprises (HE) provide livelihoods to about 25 percent of the rural workforce and are defined as sole proprietorships with no paid employees. The majority proponents are poor and near-poor households, and their enterprises are often complementary to agriculture in rural areas. Although the sector is much less developed in Mozambique than in other SSA countries, it derived 40 percent of jobs outside of agriculture in 2009, and over 30 percent of households reported income from HEs. Self-employment in HEs is much more common than wage and salary jobs in SMEs.114

A rural household/entrepreneur in Mozambique has about 8 income sources, of which 2 are agricultural related. The study in rural Nampula showed that non-agricultural income represents a much higher proportion of the household income (93per cent). However after adding back household consumption to the agricultural income, the income derived from agriculture increased from 7per cent to 49per cent. The rural entrepreneur consumes more agricultural output than they sell. The study also highlights that most of the rural entrepreneurs save within their homes, with only 9per cent participating in rotating savings and credit associations and 5 per cent using other financial services. Most of the rural entrepreneurs are not aware of mobile money [115].

Overall, household enterprises are associated with higher levels of household consumption, as well as lower poverty rates and greater upward mobility in rural areas. However, limited credit access, inadequate infrastructure, vulnerability to crime and corruption, and bureaucratic barriers to formalization inhibit their growth and reduce their contribution to poverty reduction and shared prosperity. [116] This includes small businesses such as charcoal trade in the Central region. It should however be noted that the sector is under-analysed and under-appreciated, despite evidence of its potential to significantly contribute to poverty reduction in rural and urban areas.[117]

Informal trading remains the main channel for smallholder access to markets. Although value chains differ significantly between crops, evidence suggests that the majority of smallholder farmer's marketable surplus is sold through informal assembly traders118. This is usually due to smallholder farmer's constraints such as remoteness, lack of access road and high transportation costs. Rural traders provide farmers with the convenience of selling their produce at the farm gate, without incurring additional transportation costs.

Although issues related to the lack of transparency and fairness in the pricing mechanism persist, field observations suggest some advantages in the trade with rural traders. They provide a market outlet for small farmers that are unable to achieve economies of scale in their production to lower the unit cost of transport to a point where transporting their surplus to markets outside of the village becomes profitable. They pay cash at the point of sale, unlike large processing agribusiness, that pay after a long period. They enter rural markets soon after the harvest to acquire grain, unlike other processors that delay entering into the market until the grain has been given sufficient time to dry.119 In fact, the rural traders provide an important opportunity for farmers to receive an income after long periods of waiting for the harvesting period.

[113] Jayne et.al (2016)

114 Louise Fox & Thomas Pave Sohnesen (2013) Household Enterprises in Mozambique Key to Poverty Reduction but Not on the Development Agenda?, World Bank – Policy Research Working paper 6570

[115] CGAP (2016)

[116] World Bank Group (2016) Systematic Country Diagnostic – Mozambique

[117] Cunguara et al., 2011; Fox, et al., 2008

[118] Dixie, Grahame (2017) Lessons from IFAD's East and Southern Africa portfolio: Tackling rural poverty through output markets

[119] Nicholas J.Sitko1&.T.S.Jayne (2013) Exploitative Briefcase Businessmen, Parasites, and Other Myths and Legends: Assembly Traders and the Performance of Maize Markets in Eastern and Southern Africa

However, a recent study on rural traders in Nampula and Chimoio suggests that informal traders often encounter difficulties in selling the produce they would have procured from the farm-gate during peak season as the markets are over-flooded. While in the low season, the traders also reported having difficulties to sell their products, due to the increase of prices because of the reduction of supply as a result of the ongoing economic crisis which affected the purchasing power of most urban consumers who rely on wage employment. [120]

Larger agribusinesses are expected to take a larger share of the smallholder market as processing and trade, become more important. Meanwhile, evidence suggests that changes are also occurring among traditional traders and off-takers, that is, disintermediation, modernizing and use of information communications technology. And as small-scale traders are likely to retain a very significant role in linking SHFs to market, development practitioners and project designers should also be alert to how these SME agribusinesses can be incorporated into project design[121].

D. The Targeting Strategy, Measures and Target Groups

Lessons Learnt

The 2017 Country Strategy Programme Evaluation indicates that an exclusive focus on economically active poor, who already had the potential to expand and commercialize, had moved the IFAD-supported project interventions further away from the traditional IFAD beneficiaries. The targeting approach focused on producers that already had access to better factors of production and that were already members of associations and groups, in districts that had a potential for surplus production and marketing, and on value chains that ended up transferring most of the added value to outside the rural communities.

The Evaluation assessed gender and women's empowerment as moderately satisfactory on the basis of the following findings:

- ✓ Women's access to and ownership of assets, resources and services: more women have access to advisory services in all areas supported by the project portfolio; possibly lack of gender-disaggregation in monitoring led to an under-estimate of improved access for women to assets and resources, and the only strong evidence in this respect was associated to the ASCAs;
- ✓ Participation in decision-making: in some cases, projects have enabled women to take on leadership roles in producers' organizations; only anecdotal evidence was available about changes in the intra-household decision-making;
- ✓ Workload balance between men and women: no project had addressed this issue.
- ✓ With regard to vulnerable populations, the previous strategy placed importance of on HIV and AIDS, but did not include any activities directed to this population.

Building on the above-mentioned lessons learnt and poverty dynamics in the country, the targeting strategy is designed to address the needs of the different strata in the rural areas, and ensure that projects will focus, not only on the economically active poor, but also on the poorest and vulnerable households. The COSOP will adopt bottom-up approach that is compatible to the reduction of poverty, food security and malnutrition, promotes the inclusion of rural households and marginalized groups into remunerative activities along agriculture value chains and builds the resilience of communities to cope with shocks. The COSOP will strive to maintain a balance between addressing the needs

[120] Dias, P (2017) Strengthening Mozambique's Food Markets and Intelligence Capacity: Evidence from the 2016/2017 El Niño Crisis in Mozambique, FAO TCIA

[121] Dixie, Grahame (2017) Lessons from IFAD's East and Southern Africa portfolio: Tackling rural poverty through output markets

of the poorest and vulnerable households and commercially oriented rural households who will serve as the drivers of growth, innovation and transformation.

To achieve this, the COSOP will adopt an integrated targeting approach which entails geographic targeting, direct targeting, self-targeting and indirect targeting. The COSOP will also focus on enabling measures to facilitate a conducive policy and institutional environment, and focused capacity building and empowerment measures to encourage more active participation of the target groups and particularly the inclusion of vulnerable groups such as women, youth, HIV affected and elderly.

The Target Group

The direct target group will consist of poor and disadvantaged rural households involved in agriculture, fisheries and household enterprises. These will include men, women, women head of household, youth including the vulnerable. In line with the rural livelihood assessments of the country, and the ongoing portfolio, the main characteristics of the target group include: i) smallholder farmers (subsistence and semi-subsistence), ii) smallholder fisher men and women, iii) rural household and micro-entrepreneurs.

- ✓ ***Smallholder subsistence & semi-subsistence producers****:* This category will consist of poor rural households engaged in both agriculture production and fisheries. They have limited access to land, inputs, credit, markets and market information, representing about 99 per cent of the agriculture sector producers in the country. These producers are net producers of staple crops, food insecure with no proper water and soil fertility management practices. They are under-covered by extension, and have a longer learning curve in the uptake of new technologies and approaches. They largely operate as individuals and are highly vulnerable and dependent on their farm produce. They have weak bargaining power, poor market linkages and no access to market information.

- ✓ ***Rural household (self-employed) entrepreneurs***: This category includes subsistence producers, engaged in various entrepreneurial incomes generating activities off-farm. They have limited access to finance, land, and live below the poverty line. In addition, they have insufficient production, depletion of food stocks, and have high risk exposure to rising food prices, thereby are food insecure, and exposed to acute malnutrition due to inadequate diet. They also have limited resilience to climatic shocks; therefore households are highly vulnerable, live off of farm produce, either by consuming, selling, or trading their agricultural labour. This is an important target group deserving promotion because of their potential for income and employment generation. The entrepreneurs are interested to expand their activities but have limited access to financial resources. They have limited business and technical skills, however a fully integrated approach providing credit, raw materials, technical and business training as well as marketing assistance would be beneficial for this group. They also may need small equipment to further support their business enterprises.

Women will be directly targeted as they constitute the main constituent engaged in agriculture, and the majority of the rural population. Female-headed households are amongst the poorest and their economic progression is hindered by a combination of social and structural constraints. Their access to land, knowledge, inputs, finance, high value agriculture chains and capacity to generate income is heavily curtailed by traditional gender roles that will undermine their participation unless gender is mainstreamed into all projects. Selection quotas will be implemented to prioritize their participation whenever possible and project implementation and management arrangements will be gender sensitive. Interventions will be aligned to the Strategy for

Gender Inclusion in Agriculture (2016-2025) developed by PROSUL for the Ministry of Agriculture and Food Security.

Youth will constitute a direct target group because they are more likely to be resource poor, lack control over assets and have limited livelihood options, and their integration into rural economies has long-term positive social and economic consequences. Selection criteria will prioritize their participation whenever possible and a number of activities have been identified that will address their needs and priorities. Interventions will be guided by the Gender, Youth and Social inclusion manual. In this regard, the COSOP will consider the heterogeneity of the youth cohort i.e. Gender, level of education, interest & aspirations in determining investments.

Highly vulnerable and marginalized households i.e. HIV/AIDS affected, elderly: This is a diverse group comprised of child and/or female-headed households and the elderly women who assume the role of carer for orphans and the sick. They are highly vulnerable due to the impact of HIV/AIDS, which retards agricultural production, and threatens food security, due to the lack manpower at crucial moments of agricultural productivity. They may also be impacted by traditional land tenure systems, where women can lose access to land All factors (HIV/AIDS, Disabilities, Elderly) influence the availability of other household members for productive activities, while they are tending to their needs. IFAD will consider cross-cutting initiatives to ensure that project interventions are sensitive to their unique circumstances, in particular through training and capacity building on production, business skills to facilitate household /group enterprise development, diversification of production, access to markets. This will also include the inclusion of HIV/AIDS Nutrition, dietary diversity & food management in extension modules.

Secondary target group: The secondary target group are critical players in the overall functioning of the targeted value chains. They will be supported through capacity building and training and short-term investment credit with the aim of increasing their capacity to provide better services to farmers. The stakeholders identified include: agro-dealers, rural buyers, processors, and emergent farmers providing support services to smallholders. Whilst a significant part of this target group is likely to be non-poor, these services at all levels of the value chain are essential for inclusive value chain growth. Public extension officers will also be targeted through training and capacity building to enable to sensitise them on gender, youth and nutrition-sensitive interventions.

- ✓ ***Emergent farmers (market-oriented producers)*** are considered as economically active, commercially viable (to an extent) and in a position to benefit from opportunities along the agricultural value chain. They will be targeted in so far as they bring experience, dynamism, innovation, and services to the poorer subsistence-oriented farmers. These emergent smallholder farmers are already involved in value chain production (existing cassava, horticulture, livestock producers and fishermen). This group is composed of both poor and non-poor, who have already graduated to market-oriented agriculture. This group has successfully increased production, applies fertilizers and some agronomic practices, and is interested in further expanding their business, increasing value-added and developing new activities that support the production and marketing of target crops.
- ✓ ***Small and medium entrepreneurs (transit and stable):*** This category has multiple income sources and includes wages from occasional labour, salary from employees, retail, agriculture and other non-farm income generating activities. The business employs 5 to 20 workers and monthly income is between US$100 – US$ 1000. The group earn higher income, has resources for addressing emergencies. The household income is split equally between agriculture and non-agricultural MSEs. The group has

been set up by policy makers, development agencies and financial institutions. The business is usually obtained through family inheritance usually originating from an agricultural base. The group can access credit for the formal financial institutions for funding MSEs operations as well as buying new equipment to replace obsolete machinery. The group is wealthy, more educated and more prepared to tackle emergency situations.

Indirect target group: Indirect target groups include those that are not directly targeted through project activities but who will benefit from the spill-over effects of project activities. These include: (i) poor households who lack the assets necessary to participate directly in the project activities but who will benefit from labour opportunities generated by increased agricultural production; and (ii) value chain producers in target districts but out of the project area, who will benefit from the development of institutional capacities and business models building on project achievements that will support the replication of project activities out of the target sub-counties.

Targeting, Gender and Social Inclusion Mechanisms

I. Geographic Targeting

In line with Agriculture Sector Development Plan, national poverty trends and the CPE recommendations, the COSOP will be national in scope and will adopt and integrated targeting approach. The overall intention of the COSOP will be to re-focus IFAD-supported interventions to support investments that are inclusive and focused on the poor and vulnerable people in rural areas. The Programme will align with the Operational Plan of the Agriculture Sector Development (PODA), which is premised on the development of 15 strategic value chains, (7 are priority products) in agriculture development corridors i.e. Pemba-Lichinga, Nacala, Beira, Limpopo and Maputo. However, the criteria for selecting the districts will integrate different dimensions such as i) rural population density, ii) intensity of poverty, iii) agroecological potential, iv) potential for inclusive value chain development, v) potential for market integration and the vi) efficiency of service provision. Hence, within the national scope, the Programme will accommodate the remote and poorest areas, such as the North and the Central regions and as well the South, which is highly vulnerable to droughts, where there is however huge potential on value chain interventions. Based on the poverty indicators, due attention will be given to the rural poverty and stunting hotspots such as Zambezia, Sofala, Manica and Gaza. The programme will also maintain focus on the ongoing interventions under PROSUL, PROMER, PROPESCA, PRONEA, and PROAQUA.

II. Direct Targeting:

Overall, an inclusive approach will be pursued to enable the extremely poor and food insecure, vulnerable (HIV/AIDS affected and elderly) to participate and benefit from the relevant programme interventions. The programme will target directly the poor and disadvantaged smallholder farming households, guided by the characteristics of smallholder farmers outlined in table 5. Due consideration will be given to i) participating households characteristics i.e. must be living below the national poverty line, ii) farmer groups or associations must be at least 70 percent made up of small farming households; iii) priority for districts, localities and communities that have a high incidence of poverty; iv) social affiliation, v) labour, income source, vi) specification of quotas for the participation of women (50 per cent) and young women and men (30per cent). Projects will be expected to work with partners to ensure that the disadvantaged individuals – HIV/AIDs affected, elderly – have access to the full range of assistance self-targeted to the poorest. Participatory measures will also be employed to involve communities in the selection of beneficiaries. Although the Government approach for defining smallholder farmers is based on landholding of 2 hectares and below, it must however be noted that land holding is value chain specific.

Table 5. Smallholder household characteristics (CGAP)[122]

Criteria for defining smallholder households	Key characteristics	Poor smallholder	Emergent/Commercial farmer
Market orientation	Subsistence vs. market-oriented vs. hybrid	Subsistence/Hybrid	Market-oriented
Landholding size	Threshold [123]	Value chain specific	Value chain specific
Labour input	Family vs. hired	Family	Hired
Income	Shared income from farming, multiple sources		
Farming system	Technology, irrigation	Rain fed	
Farm management responsibility	Owner, influence over how to farm		
Capacity	Storage, management, administration	limited	
Legal aspects	Formal vs. informal	informal	formal
Level of organization	Member of group— producer, supply chain, service provider		

III. Self-Targeting Measures

The motivation for selecting this measure is to mitigate the challenge of separating the poor from the well up, by introducing programme requirements that dissuade the participation of the well up households but promote the participation of the poorer and vulnerable households. In this regard, the approach to self-targeting will be based on interventions and support that respond to the priorities, financial and labour capacities and pre-existing livelihood strategies. Deliberate efforts will be made to ensure that the selected value chains 124will be suitable for women, youth, poor people and people living with HIV/AIDS considering their potential for food security, local sales, small volumes, low input, low risk, low risk and proximity to homestead, availability of local processing equipment and value-adding opportunities. There will also be purposive selection of technologies that address women's labour constraints, and are also suitable for use by the youth and vulnerable groups. The programme will promote the use of self-help labour input, as a precondition for accessing certain types of project support. This will enable the projects to reach the poorest households and individuals in contexts where the upper class consider manual labour as socially degrading. More comprehensive detail is presented in table 6.

IV. Empowerment Measures

The main focus will be to support the poor, women, youth and vulnerable individuals to have a stake in the decision-making process at the household and community levels. The main entry point is through exposure, training and capacity building in both soft and hard skills. The soft skills relate to the sensitisation efforts that are focused on addressing cultural and traditional norms, gender and age stereotypes that inhibit equal participation and benefit. In line with the new IFAD focus on promoting transformation of gender relations, the COSOP will focus on addressing the root causes of gender inequalities. Potential entry points include:

i) access to and control over productive resources and assets is essential for rural women to participate in and benefit from economic activities and to diversify their income base,

[122] Extracted from CGAP (2016)
[123] Caution as this will be dependent on the value chain. Livestock producers would naturally have vast tracts of land than crop and/or fisheries producers.
[124] See table 7 for a comprehensive description of the opportunities in the strategic value chains

ii) access to decent employment opportunities is crucial for reducing poverty, particularly for rural women and youth who make up a growing proportion of the rural labour force in many developing countries,

iii) developing the skills and knowledge of rural women and girls – through training in literacy and numeracy, or vocational, technical and managerial training – enables them to participate more in development interventions and business opportunities,

iv) fostering women's participation and leadership in rural organizations and community groups and supporting women's groups are required to strengthen their voice and influence; and

v) investing in rural infrastructure and laboursaving technologies is essential to lessen the burden of water and firewood collection and to allow access to markets with products.

Household methodologies (HHM) will be the main instrument used to enable household members to identify and overcome obstacles and to maximise on the household's economic potential. In doing so, HHMs go beyond addressing the symptoms of gender inequality, by tackling the underlying social norms, attitudes, behaviours and systems. Household methodologies work on gender relations within the 'black box' of the household. They work to bundle the disparate livelihood strategies pursued by women and men (her plot, his plot, etc.) into one coherent strategy. The formation of a 'family vision' to which adult family members contribute – along with children, in many cases – enables the family to conceptualize and work towards shared, time-bound goals. Critically, household methodologies do not seek to empower women at the seeming expense of men. Rather, during the process of planning a household livelihood strategy, all household members come to realize that working together is a win-win solution that benefits everyone.[125] More comprehensive detail is presented in Table 6.

Monitoring and Evaluation

All projects will be responsible for ensuring that the project learning systems allow for the monitoring of Targeting, Gender and Social inclusion, and that achievements and lessons learnt are made available to project stakeholders and project implementers for regular analysis, improved performance and annual programme planning and adjustments. Considering the strong social inclusion approach, projects will be expected to introduce participatory and decentralised monitoring and evaluation approaches that actively involving target groups and service providers.

The Women Empowerment in Agriculture Index (WEAI) will be a key M&E tool for assessing results achieved in the portfolio on gender and social inclusion. The index measures the empowerment, agency, and inclusion of women in agricultural sector through five dimensions:

1. ability to make decisions about agricultural production, livestock and fisheries
2. access to and decision-making power over productive resources such as land, livestock, agricultural equipment, consumer durables, and credit,
3. Sole or joint control over income and expenditures,
4. leadership in the community, assessing membership in economic or social groups and comfort in speaking in public
5. Allocation of time to productive and domestic tasks and satisfaction with the available time for leisure activities

These dimensions will enable to monitor the main gender outcomes for the COSOP: a) women's economic empowerment; b) women's decision-making role in the household and community; c) equitable workload balance between women and men.

[125] IFAD Gender Team (2003) Going to scale with household methodologies in IFAD-supported programmes and projects

The WEAI enables to measure the "quality" of women's empowerment throughout these different dimensions, as well as their empowerment relative to that of men in the same household, therefore enabling the identification of gender gaps or broader poverty issues and track progress to close them over the COSOP life.

The WEAI is calculated on the basis of survey-based questionnaires that are run at the household level with male and female members. In consideration of the relevance of financial inclusion initiatives in the Mozambique portfolio under COSOP Strategic Objective 3, additional modules will be integrated in the WEAI questionnaires to track women's ability to access financial services and engage in rural enterprises.

The WEAI will be calculated at COSOP baseline, midterm review and endline. The baseline will build on already existing datasets in the country, particularly the one fielded by the Feed the Future initiative, implemented by Westat in partnership with TANGO International and the Carolina Population Center of the University of North Carolina at Chapel Hill. Fieldwork was conducted by the Association of Nutrition and Food Security (ANSA) with input from Westat and TANGO International.

The main sources of primary data will include farming households, entrepreneurs, implementing partners and NGOs as well as the private sector (particularly agribusinesses engaged in contractual agreements with the target groups). The secondary sources of data will include surveys undertaken by the following national institutions:

- National Agriculture/Fisheries Household Survey - Ministry of Agriculture in collaboration with INE
- Population Survey - INE
- Poverty survey – The National Institute for Statistics (INE)
- National Institute of Aquaculture (INAQUA)

Project results frameworks will be reviewed and M&E indicators fine-tuned at the start-up, and for ongoing projects, during Mid-Term and Supervision missions, to ensure their suitability to measure performance against Gender and Social Inclusion. Baseline survey's will be expected to be undertaken in selected representative locations to assess the physical, socio-economic status and vulnerability of the households and to define the benchmark situation, by age and gender, against which project performance will eventually be compared.

The targeting and social inclusion performance will be explicitly monitored in these surveys and the impact assessment to assess: (i) the success of inclusion and targeting measures; (ii) the impact on different target group types (farmers, fishers, entrepreneurs), and disaggregated by gender and age. The inclusion performance will be monitored in surveys as well as through participatory monitoring and evaluation of performance.

Table 6. Inclusion, Empowerment & Enabling Measures

Target Group	Individual/Household	Community/Group (Collective)	Service Delivery
Smallholder producers (crops, livestock, fisheries)	-stability of production and intensification -access to productive resources **water**, inputs, finance, , market information, technology, infrastructure - training and literacy - secure land tenure - Direito do Uso e Aproveitamento da Terra (**DUAT**) -Skills transfer among household members -Rural household planning for resources use, live - Functional literacy & entrepreneurship skills & training in small business management	- organized for collective action in i) access to productive resources, ii) post-harvest – processing, marketing, and iii) access to knowledge and innovations -effective, participatory and inclusive decision-making structures -local ownership -community-based planning, monitoring & implementation -community consultation on investments in rural infrastructure, research & extension	-selection of poor and vulnerable districts - research and extension and adequate farmer-extension knowledge flow -performance-based contract management with service providers -relevant technical expertise in PMU -extension including nutrition, climate smart, HIV/AIDs awareness -land tenure – continue droll out of the DUATs & standard demarcation of plots - participatory needs assessment -household savings and revolving funds -insurance products for farmers
Rural entrepreneurs	-basic & financial literacy -business management skills - access to finance -mentoring and coaching to incubate business ideas and opportunities -training on value addition -small micro-equipment, processing and value addition -access to markets -formalization -non-farm enterprises with limited capital investment, quick return and low risk	-Formalization and membership of groups for collective action -Formation of sustainable local level financial savings groups e.g. ASCA's	-Appropriate financial packages and services -Well performing financial institutions -Financial literacy training -Market assessment & viable business models
Emergent Farmers	-greater opportunities for value addition -Access to services -Understanding nutritional needs for dietary diversity and to reduce stunting	- community lead farmers – champions of innovation, demonstrations	-mutually beneficial relationships between smallholder farmers and emergent farmers based on mentoring and empowerment of the small farmer -viable business model that derives mutual (win-win) benefits, avoiding elite capture -support on farming as a business
Micro, Small and medium entrepreneurs (transit and stable)	-access to finance		-Access to appropriate and sustainable finance -business models for the provision of affordable services to the poor
Vulnerable and disadvantaged (women, youth, HIV/AIDs affected, elderly etc)	- Opportunities for livelihood diversification to promote participation in trading, agro-processing and value addition - Functional literacy & entrepreneurship skills & training in small business management	-representation in decision-making -Effective community support mechanisms -promote as role-models -Form and strengthen groups	-Apply household methodologies -vouchers for work that are redeemable as inputs -self-help labour input

	-access to land and other productive resources - mentoring and coaching to determine economic activities that can be undertaken close to the homestead - ***labour saving technologies*** to reduce the burden e.g. multi-purpose borehole in dry areas -non-farm enterprises with limited capital investment, quick return and low risk - micro-loans with no capital requirements --non-farm enterprises with limited capital investment, quick return and low risk -employment opportunities	- community conversations to address cultural norms and prohibitive behaviour	-eligibility criteria based on economic or social vulnerability -establish remunerative work programmes e.g community access roads -Selection of VCs that have potential for economic opportunities on and off-farm -Gender and youth officer in PMU -Gender, Youth and vulnerability sensitive FFS -Adult & financial literacy, and business skills Skills development for extension officers and other agriculture sector professionals -Gender & pro-poor sensitisation of value chain players
	Additional considerations		
If Women	-training on nutrition and dietary diversity -self-confidence and mentoring -reduce workload through labour-saving technologies, improved infrastructure & sharing workload and child care facilities -leadership training	- Gender awareness to eliminate of bias and gender stereotypes - change gender stereotypes that burden women and inhibit their participation in economic activities -women to demonstrate their capacities by hosting demonstrations	-Selection of VCs that have potential for economic opportunities on and off-farm -50 per cent target beneficiaries for each project -Gender sensitive training and provision of services -Gender sensitive programming - R&D for labour saving technologies -Train women to be trainer of trainers (ToT)
If Youth	- technical/vocational training and business skills -mentoring and coaching to incubate ideas and economic opportunities -access to finance - opportunities for high-potential production in high value, short cycle crops - innovation challenge funds	- voice in community planning processes to infuse innovation -elimination of bias and age-based stereo	-30 percent target beneficiaries for each project (and/or based on interest) -Vocational training -Youth sensitive lens in selection of VCs -earmark funds -Selection of VCs that have potential for economic opportunities on and off-farm, and attractive to young people
If HIV/AIDs affected, elderly,	-safety-net measures (conditional and non-conditional) cash transfers -household entrepreneurship and production activities that can be undertaken in the vicinity of households --non-farm enterprises with limited capital investment, quick return and low risk - micro-loans with no capital requirements	-HIV/Awareness campaigns to reduce stigma and exclusion -	-earmark funds -social development officer - Nutrition, dietary diversity & food management included in extension

Table 7. Off-Farm Livelihood Opportunities in the Strategic Value Chains

15 Strategic Agriculture products	Priority Value chain	Privileged for re-vitalization	Privileged for export	Off-farm Livelihood Opportunities
Rice	√			Value-addition in the form of grading/quality control, re-packaging, labelling or delivery to higher-level markets
Roots and Tubers	√			Cassava – processing into flour, tapioca, Gari, Bread, Cakes, Biscuits
Poultry	√			Grading, egg production and sale, indigenous chicken production
Fruits	√			Grading, fresh cut produce, dried, juices extraction, packaging/labelling
Vegetables	√			Grading, fresh cut produce, dried, packaging/labelling
Beans	√			Grading, drying, packaging/labelling, pre-cooking
Red Meat	√			Management of feedlots, Abattoirs (small to medium), Hyde curing, leather products, drying , Dairy – bulk collections, chilling, processing into milk, cheese, yoghurt, (micro to large)
Maize				Dry or wet milling into flour, maize syrup, maize starch, high fructose syrup and maize oil. Sale of fresh mealies, dried mealies,
Soybean				Soya milk/yoghurt, flour, meat substitute,
Sesame				Processing into sesame tea, snacks, jelly, soap, flour & cakes. Quality seed production.
Wheat				Milling in to flour – by-products – pasta, cakes, biscuits,
Banana			√	Tissue culture production, drying, chips
Cashew			√	Roasting, shelling, packing, production of butter
Cotton			√	Classifying lint from seed, processing seed into oil & soap, transport from farm gate to factories,
Sugar			√	Processing into molasses, ethanol and other by-products
Others				
Tea		√		Drying, flavouring, packaging
Coffee		√		Drying, milling, flavouring, packaging
Paprika			√	Sun Drying, sterilizing, Dry Milling, wet milling for pastes, sauces
Macadamia			√	Roasting, shelling, packing, production of butter

South-South and Triangular Cooperation (SSTC) Approach for the Mozambique RB-COSOP 2018-2022

I. Introduction

1. South-South and Triangular Cooperation (SSTC) is a development cooperation modality of IFAD's business model. The Fund is intensifying its SSTC activities to expand development opportunities for smallholders, for available and replicable technologies, knowledge, approaches, and other transferrable rural development solutions. Additionally there are opportunities to increase the flow of financial resources for agricultural investments through partnerships.

2. IFAD presented its new approach to SSTC to the Executive Board in December 2016. As a general guideline for the new approach, the Fund is seeking to undertake initiatives in two broad domains: (i) technical cooperation and (ii) investment promotion. Technical cooperation is mainly composed from the typical options for SSTC activities (e.g. knowledge exchanges, technology transfers, workshops, study tours, etc.), which developing countries have been engaging in for more than four decades. IFAD is deepening and finding new ways to engaging with this type of cooperation. At the same time, the Fund is also seeking to pilot and scale-up new approaches for promoting increased financial cooperation (business-to-business, government-to-government and community-to-community exchanges, increased investments brokerage) between developing countries. This area of work is consistent with recent trends in the global development.

3. In the context of the new Mozambique COSOP for 2018-2022, the elaboration of SSTC approach was prepared with close collaboration with IFAD's Mozambique Country Office (ICO), due to their extensive experience with local players and country knowledge. This annex presents the key elements discussed in meetings with several government counterparts, UN agencies, Multilateral Development Banks, international financial institutions and other organizational stakeholders working with Mozambique on SSTC[126] and benefitted from a field visit to enable context specific approaches.

II. IFAD-Mozambique SSTC Engagement Rationale

4. SSTC has been identified as an important instrument for the Government of Mozambique, especially as a tool for learning from others in terms of capacity building involving the sharing of experience, technologies and solutions. ProSavana, a triangular cooperation programme between Japan, Brazil and Mozambique for agricultural development of the tropical savana in Mozambique, has been the government's flagship programme for SSTC promotion, showcased as a successful solution to improve the livelihoods of inhabitants of Nacala Corridor through inclusive and sustainable agricultural and regional development.

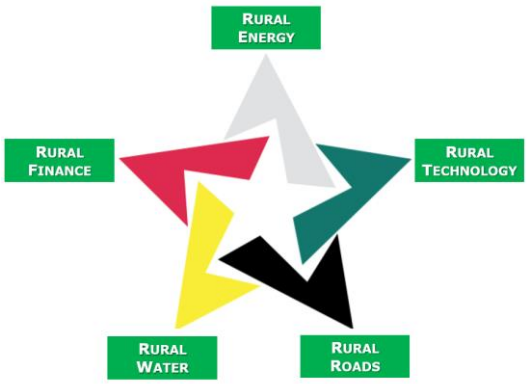
5. To boost results in rural development, focusing on improving the life of smallholder farmers and artisanal fishers, Mozambique established in 2015, in alignment with the 2015-2019 government strategy, the National Programme for Sustainable Development (NPSD), a sequence to the Poverty Reduction Action Plan (PARP 2010-2014). The NPSD is an integrated rural development programme

[126] Key partners met in April 2017 include: Directorate of Treasury/Ministry of Finance; Directorate of Agriculture/Ministry of Agriculture and Food Security; Directorate of Planning and International Cooperation/Ministry of Agriculture and Food Security; Directorate of Rural Development/Ministry of Land, Environment and Rural Development; Directorate of Land/Ministry of Land, Environment and Rural Development; Food and Agriculture Organization (FAO); World Food Programme (WFP); World Bank Group; Alliance for a Green Revolution in Africa (AGRA); International Development Enterprises (IDE); Mozambique Centre for Investment Promotion (CPI); US Agency for International Development (USAID); Mozambique's Institute of Agricultural Research (IIAM); Embassy of India; Embassy of Brazil; China-Africa Development Fund (CADF); National Fund for Sustainable Development (FNDS); and the UN Development Program (UNDP).

that aims to promote the sustainable use of natural resources, land tenure and environmental management. This programme aims to foster a grassroots local economy by complementing the supply of basic services, capacity and investment attractions opportunities for development, such as local capabilities and innovation, and contributing to community resilience and climate change operations. More specifically, the NPSD has the following strategic priorities:

- **Energy**: providing the rural economy with productive factors that are decisive for its dynamization process;
- **Water**: Ensure basic services essential for the well-being of the population, and impact on productivity in rural areas;
- **Training and technology transfer**: Strengthening productive capacity through technology transfer and training for rural development actors;
- **Market linking infrastructures**: Ensure the development of economic and social infrastructures to increase accessibility and mobility in rural areas;
- **Banking and Finance**: Promoting a diversified and job-creating economy by stimulating investment in the strategic sectors of the rural economy;

Figure 1 – National Programme for Sustainable Development (NPSD) Key Areas



6. While the management of the NPSD is centred in the Ministry of Land, Environment and Rural Development (MITADER), it is coordinated with all line Ministries that directly influence smallholder farmers and artisanal fishers, such as the Ministry of the Economy and Finance (MEF), the Ministry of Agriculture and Food Safety (MASA) and the Ministry of Sea, Inland Waters and Fisheries (MOZPESCA). More specifically in relation to this COSOP, the SSTC priorities identified will work with the strategies of MASA, MOZPESCA and MEF to alleviate rural poverty. These Ministries will be the key lead agencies during the next five years focusing on delivering the country programme with IFAD, fully aligned with the major strategies defining the framework for collaboration between the government and its development partners.

7. To facilitate possible SSTC alignments with government counterparts and other stakeholders, a cooperation approach is presented with a particular focus on agriculture, fisheries and access to finance, supporting the Strategic Objectives (SOs) of the COSOP 2018 – 2022 noted below.

   - **SO1:** *Productive and sustainable water and land use / management*[127] *by the rural poor, notably women and youth. IFAD will support its target groups, with a gender and youth focus, to access water and secure land, and sustainably manage natural resources, so they both can improve their food security - either through production or purchase of nutritious foods, and invest more time and money in their land as a livelihood strategy*.

[127] This is also inclusive of: climate resilience, natural resource management, etc.
[#] Reporting on Outcome and Milestone indicators will be disaggregated by: Youth, Women, Men

- **SO2:** *Sustainable value chains for priority commodities are remunerative for smallholder producers and create employment for the rural poor . IFAD will finance investments in productive climate-resilient rural infrastructure, support enterprise development and employment creation, and promote partnerships along the value chains, so enabling all target groups to improve their livelihoods and increase their incomes*.
- **SO3:** *Poor rural people are able to use financial services to improve access to income-earning activities, develop their livelihoods, and manage risks and withstand shocks. The IFAD investment would enable FSPs to offer affordable, responsible and accessible financial solutions for poor rural people that are sustainable and at scale. An infrastructure that enables ubiquitous, efficient, open and safe financial markets in place and the policy and regulatory outline for financial inclusion is enforced*.

8. The ICO will continue to facilitate Mozambique's engagement in SSTC with neighbouring countries, within the region and globally. Based on the challenges and opportunities to expand Mozambique's overall benefit of SSTC, grounded on the priorities of the COSOP, the following section of this annex will detail opportunities that could be applied. IFAD's SSTC approach to Mozambique intends to assist the government's capacity development needs, in support of IFAD's country programme.

III. Possible partnerships and initiatives for SSTC in Mozambique

9. Over the last 34 years, IFAD and the Government of Mozambique have jointly invested some US$400 million in rural people to strengthen inclusive and environmentally sustainable economic growth, embodied in 12 programmes, projects and grants in the country. This collaboration has yielded several operations at field level that can be shared and replicated in other developing countries. The same can be said for knowledge and technologies developed in other countries that Mozambique may benefit from. Within this context the following SSTC activities were identified as possibilities for the 2018-2022 period. This is not an exhaustive list, as new SSTC activities may be identified by the ICO, requested by government, or suggested by partners, during the COSOP implementation period.

Rural Technology (Training and Technology Transfer)

10. The SSTC proposal for this area is not just based on future opportunities but also recognises the achievements of IFAD's Mozambique country programme for the impact it has had to date to further strengthen positive outcomes for the target groups.

11. In rural areas, the training and transfer of technology offers greater efficiency and effectiveness in the production processes, and gives even greater competitiveness to the local economies. This is a key area to create mechanisms and capacity building to support local production, increase productivity and where appropriate relevant structures to increase market / value chain access. Most of the identified SSTC initiatives fall under this key area, due to its natural alignment with cooperation and knowledge sharing.

12. The SSTC initiatives in the Rural Technology area include training the local governance bodies in matters of development and management of land access and tenure as well as natural resource management, resilience to climatic events, etc. Within the scope of this key area, other proposals may also include technology transfer for agribusiness, tourism and renewable energy grants to promote the transfer of technology and knowledge to rural areas.

13. The following SSTC initiatives (some already ongoing) were identified with corresponding partners:

a. **World Food Programme (WFP)**. A strong topic for exchanges with the WFP in Mozambique is nutrition and food security. Cooperation among the Rome-based Agencies (RBAs) is already taking place in the country, and the WFP focuses on supporting Mozambique by bringing knowledge on the Food Purchase Program (*Programa de Aquisição de Alimentos* – PAA) and School Feeding programmes from the Center of Excellence (CoE) in Brazil. Their focus in the country lies on capacity development towards governmental institutions. They have assisted in the establishment of a platform with Ministry of Agriculture called SIMA (*Sistema de Informação de Mercados Agrícola* – Information System for Agriculture Markets), to bring information to farmers on market (virtual farmers system). This is a solid area of collaboration regarding SSTC events, knowledge exchanges and capacity building. Continued collaboration for partnership with WFP in Mozambique is nutrition. IFAD is already working closely with WFP and FAO on nutrition, including at the policy level. Further work with SSTC could strengthen this partnership, in support to the Ministry of Agriculture in the development of sustainable systems for integrating nutrition services into the national extension system and the adoption of a national law, with a 5-year government strategy on fortification. In addition, further SST work can be pursued in support to smallholder farmers. IFAD projects work with smallholders and farmers organisations, to develop capacity, increase production and productivity (including quality and quantity), access to markets and value chains – establishing related infrastructure if necessary – to increase incomes. Facilitating possible SSTC exchanges between the two institutions, even though WFP's description of smallholder is what IFAD would call medium to large farmers, could involve an agreement in terms of benefit to farmers as WFP also facilitates access to markets and the development for their target producers and processors capacity by increasing marketing infrastructure, market information, and improving commodity quality.

b. **Food and Agriculture Organization (FAO)**. FAO's work in the country focuses on four main areas: agricultural solutions, tourism, rural infrastructure and energy. Synergies with IFAD's work in the country are relatively high. The organization's focus lies in a strategy for food security and crises analysis for selected value chains (maize, cotton, cassava and a few others). Along with policy support, FAO has been dedicated to up-keeping food production and agriculture in the MDG Programme, as well as climate resiliency actions, an item of high importance for IFAD's projects, which may represent a possible area of SSTC partnership. A specific suggestion as a conjoint SSTC activity with FAO involves their cooperation work with Brazil, in particular for policy support to family farmers. This presents an opportunity for SSTC partnership, as IFAD has a strong history of family farmer policy with REAF (*Reunión Especializada de Agricultura Familiar* - Specialized Meeting on Family Farming of MERCOSUR) at the Southern American cone. The ICO in Mozambique could collaborate with other ICO's to bring this rich experience to the region, together with FAO.

c. **World Bank Group (WBG)**. The WBG is the most active SSTC player in the country, particularly in topics as deforestation monitoring, planted forest and rural development. Possible partnership topics with the Bank include policy development, market access solutions and various value-chain analysis/programmes. The Bank has a Dedicated Grant Mechanism (DGM) of US$4.5mi that could serve as a case for IFAD to replicate with client countries. Solutions from projects, such as the SUSTENTA project can be shared for the coming IFAD Corporate Rural Solutions Database, with a focus on land regularization, infrastructure rehabilitation (e.g. irrigation), value chain financing and technical assistance as well as spatial planning.

d. **Government of Brazil**. Mozambique is the country where Brazil has the most SSTC investment in terms of knowledge sharing and technology transfer. The Brazilian Cooperation Agency has already catalogued over 30 initiatives of SSTC with Mozambique (some of which IFAD already participates in), but emerging initiatives are always welcomed. The flagship agricultural development program is the ProSavana Project, that seeks to apply the Brazilian Cerrado experience in the Mozambican Savana (large-scale agricultural production). In addition to a complementary action in the ProSavana, IFAD has an excellent programme in Brazil – SEMEAR – which may, together with the Government of Brazil, replicate its success in Mozambique, to improve knowledge management and learning on rural development in the country.

e. **China/Africa Development Fund (CADF)**. Along with India, China has a very interesting case with the Wanbao enterprise. With funds from CADF (US$250million), Wanbao established a rice production facility in the Limpopo river corridor (about 25 thousand hectares), in connection with a local development agency. Knowledge sharing and technology transfer have created short-term results such as growth in productivity (over five times more productivity per hectare) and jobs (with a strong component in gender and youth). Wanbao has also improved market access to rice production. IFAD has the possibility of triangulating this exchange in partnership with CAFD to replicate results from this investment promotion SSTC to other countries and partners. This event would also be an important example for the Corporate SSTC Rural Solutions Database that IFAD is developing.

f. **Government of India**. The Government of India is successfully implementing an investment promotion/technical cooperation SSTC in the production of beans and pulses. The Government of India has expressed the interest of financially supporting the Government of Mozambique in various areas: commercial agriculture, intercrop production, farmers' training, rural finance, agricultural marketing and the production of other seeds (such as maize and cassava) all with technical assistance provided. Benefiting from the dialogue that the ICO is already conducting with this player, this case represents an opportunity for a future joint design/financing operation, with the development of TA and VC components. This exchange can also represent a best-practice case for IFAD's Corporate Rural Solutions Database in terms of technical and investment promotion results.

g. **Mozambique's Institute of Agricultural Research (IIAM)**. The Institute is already pursuing SSTC, mainly via trilateral projects with the Brazilian Enterprise for Agricultural Research (Embrapa) in their cooperative agreement to transfer knowledge, technology and skills. IIAM is conducting important research work for the country, facing three main challenges: 1) production of basic seeds to meet country's agricultural demands (production, fortification, resilience and multiplication); 2) vaccination for cattle (production and modernization of the national system, as well as a factory construction); and 3) forest issues (production of seedlings and rehabilitation of the National Forest Center). Possible SSTC interventions include TA and capacity development in research and training. They have successfully obtained funding for a submitted project at the Agricultural Innovation Marketplace, a direct IFAD SSTC project. Further opportunities could include an IFAD triangulation with the possible Indian and Chinese investment promotion cases already noted.

h. **Alliance for a Green Revolution in Africa (AGRA)**. SSTC activities may be established with AGRA in three areas: i) capacity building for products quality improvement; ii) market access for specific value chains; and iii) rural financing. AGRA has been replicating interesting cases from neighbouring countries with success, and an SSTC partnership with them might replicate these cases for Mozambique. According to AGRA, the main challenge in Mozambique is how to

deliver rural finance to beneficiaries, due to a lack of physical infrastructure at the field. A rural financing operation is already under design for Mozambique, where SSTC could become a component to learn from successful solutions in various IFAD cases (Asia and Africa has presented good solutions for this topic).

Rural Energy

14. In rural areas, energy supply is important for both social and economic purposes. Socially, it provides comfort as well as increased health opportunities to the beneficiaries, thus avoiding emigration to urban centres in search of better quality of life. In the economic sphere, it contributes firstly to increasing economic opportunities for the rural poor for enterprises, to product quality, improving productivity and efficiency.

15. The SSTC team identified an important activity in this area, detailed below.

    a. **China-Africa Development fund (CADF).** Most IFAD projects in Mozambique require a vast number of solar panels to run water pumps, storage facilities and a variety of other uses at the enterprise and community levels. Currently, solar panels are being imported from South Africa, at very high costs, both for purchase and maintenance. The team has identified the opportunity, in partnership with CADF to establish a factory with the Chinese in Mozambique (Northern provinces) to produce solar panels, at better rates; bringing Chinese know-how, technology and investments. Like the Wanbao case in rice, this factory could create jobs and produce solar panels for the whole country (in the future, even export to neighbouring countries) at much better rates than the imports from South Africa. Initial supply could benefit all of IFAD's projects in the country, along with other international partners' projects.

Rural Water

16. Water is essential for survival, and is also a determining factor in productive processes, particularly for agriculture. SSTC projects in this key area aim at ensuring access to and treatment of water in rural areas for domestic consumption and for economic activities. Presented below are some interesting for cross learning through SSTC exchanges.

    a. **IFAD** cofinancing through PROSUL has recently introduced multi-functional boreholes, solar powered, in many rural areas. These have had a significant impact on increased agricultural production for both crops and livestock, clean drinking water as well as significantly reducing drudgery for women's time allowing them to more actively participate in economic opportunities.

    b. **International Development Enterprises (IDE).** IDE, an international NGO, is implementing its Farmer Business Association (FBA) model in Mozambique to promote resource-smart technologies such as drip systems, water pumps, and post-harvest storage. In terms of SSTC for Mozambique, they have collaborated with ProjetoAgro in Brazil, a consultancy and advisory enterprise that offers services for agribusiness in general, with expertise in horticulture, water solutions and seeds market. A conceivable SSTC activity with them in this area includes on-ground knowledge of rural water technical solutions that are already working and shared via the IDE internal knowledge exchange programme (experience with 14 countries). This would represent a best-case event to populate in IFAD's Corporate Rural Solutions Database and helping with knowledge sharing activities, as well as possible implementation of their rural water solutions to IFAD's projects in Mozambique and other countries.

    c. **United Nations Development Program (UNDP).** The UNDP has a successful pilot programme with support from the Japanese private sector,

in using a solar powered irrigation system to increase agricultural productivity in villages. Water storage, conservation and usage are a high priority for Mozambique, where most of the country suffers from floods during the rainy season, and droughts (including water shortages) in the dry season. IFAD can collaborate with the UNDP in replicating this solution in its country programme approach.

17. It is noteworthy to mention that in the topic of rural water, rooftop water collection systems is an important aspect as a climate resiliency measure to improve water collection. This technique is highly used in various countries and including Mozambique, to further counter act water shortage periods, especially in the field. This represents an interesting case for a cooperation exchange to explore the development of water catchment, inside a bigger SSTC technical solutions package.

Rural Roads (Market Access)

18. Socially, access roads allow rural communities access to education, health and leisure; while economically, they facilitate the flow of production and reduce logistical costs and postharvest loss. SSTC knowledge in this important area could improve logistics at the district level, through the construction, rehabilitation and maintenance of climate smart road network infrastructures in rural areas. This approach should also ensure investment in tertiary, vicinal roads of the same quality especially if they are linked to economic activities.

19. IFAD already has a road rehabilitation component in country projects, such as ProPesca. In terms of SSTC, no specific case has currently been identified in this sector. This is an area where further initiatives could be looked upon during the implementation of the COSOP, if in alignment with future operations in the country.

Rural Finance

20. In rural areas, the existence of financial services is of paramount importance for the promotion of social and economic life, as well as for the exercise of savings, support of transactions, trade and investment credit. Programme initiatives in rural finance, which could include SSTC, would be essentially aimed at accelerating the process of accessing financial solutions in rural areas. Three key interventions could provide opportunities for SSTC learning in rural finance, including exchanges and events, which would benefit Mozambique, as well as each of the following organisations.

    a. **IFAD** is re-engaging directly into the rural finance sector with a national programme (Rural Enterprise and Finance Programme - REFP) that builds on earlier work started with the African Development Bank. FARE will be the lead implementing agency with its nationwide coverage to further extend their client base and products. As per the COSOP SO3 has a direct focus on access to rural finance, promoting new financial products specifically for the rural poor, their enterprises and agriculture for rural transformation using mobile technologies. In this regard, IFAD will commit to a long-term view of engagement in this area beyond this COSOP.

    b. **National Fund for Sustainable Development (FNDS).** FNDS, in partnership with MITADER created the "One District, One Bank" Project that aims to accelerate the process of banking of rural areas, to guarantee full coverage of the country's banking network.

    c. **International Development Enterprises (IDE).** Along with water projects, IDE also focus their work on rural finance solutions. They have also collaborated up with microfinance institution Kiva, to provide another option besides the revolving fund for farmers to access credit.

IV. Conclusion

21. South-South and Triangular Cooperation responds to the rising interest of developing countries to share lessons learned through knowledge, technology and expertise sharing, as well as promoting trade and investments. In this context, Mozambique plays a recipient role in the SSTC arena, demanding support both in the technical cooperation and investment promotion aspects of its cooperation.

22. The Mozambican Government welcomes the opportunity to collaborate with IFAD in all aspects of SSTC. The ICO is a key element for a successful collaboration, with already ongoing dialogues and partnerships in many areas. This COSOP for Mozambique delivers a great chance for the country to progress further on greater impact for rural poverty reduction, where SSTC can be used for a stronger result. Mozambique has developed a few good cases that could be replicated with Southern countries in SSTC initiatives, such as the development of the cassava value chain and multifunctional boreholes. In parallel, the Government is conscious of the good practices, knowledge and technologies that other countries can share, with special attention to neighbouring countries, as well as with the community of Portuguese speaking countries (CPLP).

23. Understanding the importance of technical cooperation and investment promotion features of SSTC in developing countries, and identifying IFAD's role in this triangulation context is a key element the Fund's strategy, being at the center of the Fund's approach to best meet the needs and demands of its Member States. The potential for partnerships, particularly amongst developing countries, has not still reached its potential in regards to rural development, even though results have shown to be very positive in terms of solving common difficulties, with a lower-cost approach to achieving development goals. In relation to the Agenda 2030 - and especially SDG 1 and 2 - and recognising the comprehensive conditions for the Government's knowledge requests, IFAD is ready to continue and expand sharing its knowledge and services to Mozambique in the execution of its SSTC programme.

Strategy on Nutrition 2018 - 2022

Nutrition Situation in Mozambique

1. There is a global consensus that malnutrition has a direct bearing on the success or failure of the SDG and it must be understood as both an input to, and outcome of the SDGs as whole. Good nutrition leads to higher individual earnings and mental acuity, which in turn support macroeconomic and societal growth. Malnutrition impairs individual productivity, which acts as a drag on national growth.

2. Chronic undernutrition is one of the major concerns of the Government of Mozambique, 43per cent of children under five are stunted or suffer from chronic malnutrition which affects their physical and cognitive development as well as their future income-earning potential, perpetuating the intergeneration poverty trap. This situation affects half of Mozambican population and it is hindering the efforts to attain the country development agenda. According to the Cost of Hunger Africa study, in Mozambique, more than 10per cent of the national GDP is lost every year because of chronic malnutrition. This loss of human and socio-economic capital is equivalent to 62,000 millions of Meticais (or 1,600 millions of USD) per year. According the current trends, in absolute figures, the number of stunted children is expected to increase proportionally with the demographic growth.

3. The main immediate causes of chronic undernutrition in Mozambique are inadequate nutrient intake, high rates of infectious diseases and early pregnancy. Diets are monotonous, with micronutrient deficiencies affecting the majority of the population. Anemia is a widespread nutritional deficiency, it's a condition partially caused by iron deficiency but may times associated with parasite infections that cause blood loss. Malaria and gastro-intestinal parasites affect half of the population. Half of women who receive antenatal care have sexually transmitted diseases, while another half of them are adolescents. In addition, only 40per cent of infants under six months of age are exclusively breastfed. The underlying causes of chronic undernutrition are food insecurity (especially with regards to limited access and use of nutritious food), poverty and inadequate practices, when it comes to care of adolescent girls, mothers and children, as well as insufficient access to health, water and sanitation services. The basic causes of chronic undernutrition, apart from poverty, include low education levels and gender inequality, the latter being responsible for early marriages and pregnancies (PMAMRD 2010-2020).

4. Looking at the undernutrition map at country level, high levels of undernutrition are observed in the provinces of Cabo Delgado and Nampula (> 50per cent), and in Zambezia, Niassa, Tete and Manica with intermediate rates (> 45per cent). The provinces with the lowest rates (<40per cent) are Inhambane, Gaza, Maputo Province and Maputo City.

5. Overall, although the country has been experiencing a satisfactory economic growth during the last decade, the concerns about the lack of significant improvements in chronic undernutrition are considerable. This applies even in highest wealth quantile in which stunting prevalence is 27per cent. This implies that to reduce the high rates of chronic undernutrition, the Government and development partners need to design and implement interventions that go beyond the eradication of absolute poverty and address the multiple underlying causes of malnutrition.

Country policy framework to address chronic undernutrition

6. The Five-Year Plan of the Government of Mozambique (PQG 2015-2019) released in July 2015, includes the reduction of stunting as an indicator in the human and social development pillar; a clear sign of the Government commitment to tackling the food security and nutrition problem in the country. This commitment is supported by two key policy frameworks, namely, The National Strategy for Food Security and Nutrition (ESAN

- 2008) and the National Multi-sectoral Plan of Action for the Reduction of Chronic Malnutrition (PAMRDC 2010).

7. The Technical Secretariat for Food Security and Nutrition (SETSAN) is the government structure that leads nutrition initiatives playing a pivotal role at central and provincial level.

8. The Government became a signatory to the Scaling Up Nutrition Movement (SUN) in 2010, and all of the SUN platforms have representation in the current set-up. SETSAN is the Government Focal Point, the UN network, the Civil Society Platform and the Business network are all working together under the common SUN agenda. The Nutrition Partners Forum (NPF) was established in 2011 as a coordination platform for development partners under the umbrella of the PAMRDC.

9. The governance structures are largely complementary, reducing duplication and providing a wide platform for participation for a range of stakeholders. However, despite the existence of Provincial PAMRDC in all provinces, and the presence of Civil Society Platforms in three provinces, there are still considerable weaknesses in the governance structures at this level, and no multi-sectoral structures specifically addressing nutrition exist in the district governments.

10. In order to increase the efficiency and visibility of the multi-sectoral coordination structures, the GoM is in the process of reforming the Technical Secretariat for Food Security and Nutrition (SETSAN) by transforming the existing structure into a high level inter-Ministerial Committee for Food Security and Nutrition (CI-SAN) and a new Institute for the Promotion of Food Security and Nutrition (IPSAN). This institute is expected to have a coordination role but also take the lead in key operational areas (education promotion and training). The Government believes that this will add visibility to the multi-sectoral issue of undernutrition. Although the discussions about the new institutional set-up are well advanced, they have yet to be gazetted by the Government.

Government priorities and the UN programming in nutrition

11. In line with the government priorities defined in the PAMRDC in 2015 through a consultative process FAO, IFAD, WFP, UNICEF, UNFPA, WHO and REACH jointly developed the UN Nutrition Agenda for the reduction of Chronic Undernutrition to provide a clear guidance on the approach that the UN agencies are taking in Mozambique to support policies and programmes to reduce undernutrition, and to ensure a sustainable commitment of resources to the nutrition challenges the country. The Agenda highlights the priority areas for action for the agencies from 2015 to 2019, and the way in which the agencies will work together to achieve a common goal.

12. Two results have been defined to measure the impact and results of the UN Agenda for the Reduction of Chronic Undernutrition: (i) Contribution to the reduction in the overall levels of chronic malnutrition and (ii)Effective collaboration on the common agenda for the reduction of chronic undernutrition. In order to achieve these results, the agencies have agreed to engage in five main actions.

Nutrition Governance.

13. Under this area The UN agencies have an important role to support and promote mechanisms for improved nutrition governance in different sectors, and within the UN. The agencies agreed to focus on the following governance issues:

- Support to the Government and multi-stakeholder platform in order to strengthen coordination across sectors;
- Ensure coordination within the UN Network and the SUN network. Implementation of key nutrition advocacy and communication initiatives, with a focus on effecting change in high level GoM leadership on nutrition;
- Develop actions in the areas of Multispectral and sectoral policy dialogue (e.g. facilitate the inclusion of nutrition specific and sensitive components into ESAN III and preparation for PAMRDC II);

- Develop national nutrition capacity for design and delivery of policy and programming (institutional and technical capacity) in the Ministries of Health, Agriculture, Fisheries, Public Works, Ministry of Gender, Children and Social Action, Education, Commerce and Industry and Water and Sanitation;
- Leverage resources for nutrition programming (UN, government, implementing partners) through support to proposals, influencing & advocacy, pro-active identification of opportunities for additional funding;
- Support the development of nutrition information systems to provide evidence to leadership for policy change and programming.

SOCIAL BEHAVIUOR CHANGE COMMUNICATION PROGRAMMING.

14. Nutrition programmes targeting behavior change in a range of key priority areas will be the cornerstone of UN programming during the next strategic period. The priority areas identified are:

- Promotion of healthy family diets;
- Infant and young child feeding and care practices;
- Maternal care and nutrition;
- Hygiene and sanitation;
- Promotion of consumption of bio-fortified foods, home-based fortification and industrial fortification;
- Food preservation, processing & conservation and preparation. The Social Behaviour Change Communication programmes will be delivered as key components of:
- Maternal, family planning and Child Health Programmes;
- Education programmes;
- WASH programmes;
- Food systems programmes (agriculture, fisheries and livestock).

15. **Nutrition-Sensitive Food System Programming.** The UN agencies will work across productive sectors to ensure that nutrition-sensitive activities are undertaken in the areas of agriculture, fisheries and livestock. The priority areas for action will aim to promote greater dietary adequacy in terms of both quantity and quality by:

- Promotion of food production to achieve a diversified diet (high value nutritious foods);
- Promotion of diversity and production system;
- Promotion in production and capture of high value indigenous and local foods;
- Improved technologies in the areas of agriculture, fisheries, livestock and processing to decrease women's workload;
- Promotion of improved storage, preservation, conservation of food capture and production;
- Investment in, and promotion of Bio-fortified foods

16. **Nutrition Promotion Through Health System.** Strengthening of nutrition specific interventions delivered by the health system will be a key output under this action. Priority areas are:

- National Nutrition Rehabilitation Programme and local production/supply of endorsed supplementary foods;
- Ante and post-natal iron and folic acid supplementation;
- Vitamin A supplementation and deworming of infants 0-5 years old;
- Integrated Management of Childhood Illness (IMCI);
- Prevention of malaria, Intermittent malaria treatment during pregnancy and bed-nets promotion;

- Paediatric HIV care and PMTCT;
- Building evidence through strengthening assessment, monitoring & evaluation, nutrition surveillance systems and operational research.

17. **Fortification.** Supporting the Government of Mozambique Food Fortification Strategy to target micro-deficiencies will impact positively on the nutritional status of urban and rural populations. This will be achieved through the (i) fortification of industrialized food products and (ii) home-based fortification initiatives.

- Food industry based food fortification including small-scale food processors;
- Home-based fortification targeting key micronutrient deficiencies through the provisions of micro-nutrient powders and specialized supplements by the health system using the platforms which showed best performance during the testing of different delivery mechanisms.

18. **Emerging Issues.** In the UN Agenda consensus was also reached on additional two emerging areas that were observed to have considerable impact on chronic malnutrition.

- **Adolescent Girls Health And Well-Being.** The government of Mozambique is increasingly recognizing the relevance of these theme and has put in place some initiatives to address the challenges. The National Strategy for the Elimination of Early and Forced Marriage and the review of the Adolescent Friendly Sexual and Reproductive health Strategies is an example. The UN agencies will contemplate the formulation and design of an *Adolescent Girls Nutrition Initiative,* an innovative approach based on complementary programming around a common target group. The joint programming initiative will be designed to address the complex issue of nutrition requirements of adolescent girls. The key actions will include working with social behavior change programming, service delivery and micro nutrient supplementation, with a focus on:
  - Iron and folic acid supplementation using health, education and community delivery systems;
  - Contributing to the national strategy for the elimination of early marriages and early pregnancies, SBCC, law enforcement, among others;
  - Family planning targeting adolescent girls, including working to prevent second pregnancies during adolescence;
  - Development of I.T applications to engage girls in improved health and nutrition behaviour.

- **Vulnerability And Social Protection.** To address vulnerabilities caused by chronic poverty and the persistent environment related emergency situations (floods, droughts, landslides, pests and animal diseases) the second emerging issue focuses on social protection measures aimed at promoting resilience, human development food security and nutrition. With the upcoming approval of the second National Strategy for Basic Social Security (ENSSB II), the GoM may approve the implementation of a child grant targeting the children in the 'window of opportunity' from 0-2 years of age, living in vulnerable households. A number of UN agencies have been instrumental in moving forward the agenda for nutrition considerations in the social protection strategy (UNICEF, ILO and WFP), and once the strategy is approved, these agencies will continue with joint advocacy actions to ensure the design and building of systems to deliver the nutrition-sensitive Child Grant.

COSOP entry points on Nutrition

19. Promote good nutrition and resilient livelihoods through improved production, availability and access to diversified foods and clean water. A precondition for good nutrition is that diversity of foods is available and affordable for all individuals at all times. At local level, in the drought and flood-prone regions of the country, excessive intensification (i.e. monoculture) risks to simplify diets and worsening nutrition in

producer communities in addition to threatening the ecosystem resilience. Diversified production systems can be important to vulnerable producers to ensure resilience to climate and price shocks, more diverse food consumption, reduction of seasonal food and income fluctuation, and greater and more gender-equitable income generation. I

20. In addition in the visited sites poor access to clean water is a challenge affecting nutrition through health and excessive time burden for women in terms of distance and time required to provide for household consumption.

21. Proposed priority actions under this area include:

a) **Promoting access and availability of diverse and nutrient-reach food items through improved income and diversified agriculture production.** Under this area, central government and decentralized authorities has expressed strong and explicit interest in strengthening IFAD's technical support to improve production in the areas of horticulture and aquaculture production as well as development of selected food value chains. Access to production factors including land, quality inputs, technology and knowledge on climate adaptive agronomic practices are interventions with high potential to increase availability of nutritious and diversified food items locally. In drought-prone regions construction of multifunctional boreholes and shade nets for horticulture production proved to be particularly effective and popular. Under this area particular focus needs to be made on the promotion of crops with high nutritional value (e.g. legumes, fruits and vegetables) and potential to address the specific macro and micronutrient deficiencies of target beneficiaries. Investment in biofortification, especially through natural breeding, and support to production of animal-source foods on a small scale will also improve the intake of required micronutrients, proteins and fat of the most vulnerable groups.

b) **Improve access to water and sanitation.** In Mozambique access to water and sanitation is a serious concern with less than half (48per cent) of all households having access to clean drinking water and only 19per cent of households in the country who have access to safe sanitation. The majority of the population still defecates in the open air.
Mozambique is a drought-prone country where the overall access to water for household consumption, irrigation and livestock rearing remains a principal concern to be addressed with high priority. To this end building water infrastructures such as of multifunctional boreholes remain high priority intervention for government and decentralized authorities.

c) **Capacity building for improved processing storage and preservation.** Appropriate storage and preservation are essential to reduce post-harvest losses and improve or prolong access to and consumption of micronutrient-rich foods. Processing and storage techniques can preserve the nutrient content of food, and certain processing techniques can even increase it (e.g. roasting, germination and fermentation). Processing and storage and preservation can add value to crops and also increase income and profit margins, reduce seasonality of food insecurity and improve food safety.

d) **Improve access to markets.** In the remote areas of Mozambique one of the main constraints that smallholder farmers face is the lack of access to markets and adequate transportation infrastructures that would allow them to sell perishable horticulture products and generate income that can be invested for better health, care and food consumptions. An important contribution that investments in agriculture can make to nutrition is by improving transport infrastructure including feeder roads and market information systems. Smallholder producers, processors and retailers need also support in developing their marketing strategies to promote the nutritional quality of their products and be able to compete in the local markets.

22. Community-based nutrition education for improved food choices and hygiene practices. In Mozambique feeding practices of children during the first two years of life are still far from ideal and breastfeeding rates are very law (according the latest survey only 37per cent of children receive exclusive breastfeeding in the first 6 months). Hygiene during the preparation of the complementary feeding practices is still suboptimal causing diarrhoea and infections in the digestive system.

23. Care for mothers remains also below what is desired because more than half of women get married before age 18. Early pregnancy is a major health risk for both mother and child. As a result of early pregnancy, the competition between the foetus' growth and the mother's growth is the immediate cause of maternal and child undernutrition. Short birth intervals between pregnancies are also another cause of chronic undernutrition in the country.

24. Other challenges that need to be addressed remain social believes and taboos that forbid children, pregnant and breastfeeding women to eat certain nutritious foods, such as eggs, wild meat, and certain types of fish.

25. Food choice, preparation, cooking and intra-household distribution are crucial to determine the healthiness of diets in all aspects, including safety, frequency, variety, balance and proportion. These issues deserve high priority in Mozambique as they represent one of the major underlying causes of mother and child malnutrition. They need to be addressed by behaviorally focused food and nutrition education, which go beyond simple knowledge to motivate and help people develop the confidence and skills they need to feed themselves and their families well.

26. Through the community-based mentoring approaches IFAD interventions can integrate development and delivery of community-based grass root nutrition education and a behaviour change communication to introduce long term healthy food choices and dietary patterns as well as hygiene practices and family planning strategies that all contribute to improved nutrition and health.

27. Agriculture has an essential and singular contribution to improving nutrition by ensuring that diverse, nutritious foods are available, affordable and adequate to meet the needs of people of all ages at all times. Investment interventions to have a greater impact on nutrition need to be catalytic and go beyond simply increasing agricultural productivity and raising incomes or production. To ensure that changes in production result in changes in consumption, investments should also be made in activities that empower women and ensure that households' knowledge, attitudes and practices lead to healthy food choices and diets

28. In the Mozambican context, in line with the UN Agenda for nutrition, IFAD has a corporate mandate and the comparative advantage to contribute to the ongoing efforts in nutrition through better agriculture and food production systems and broader nutrition-sensitive rural investment interventions that address the multiple determinants of malnutrition involving health and care. Three key interventions considered priority for the COSOP have been identified along these lines: (i) Promote good nutrition and resilient livelihoods through improved production availability and access to diversified foods and clean water; (ii) Community-based grass root nutrition education; and (iii) support good governance and institution strengthening for improved policy and programming on nutrition-sensitive agriculture and rural development.

29. *For the target groups* this means that by the end of the COSOP period they would be actively engaging in growing / purchasing better quality food that also represents a greater dietary diversity. They would be practising more nutritious recipes, different types of preservative measures to ensure nutritional values remain. In essence the target groups will be healthier, stronger, accessing clean water and showing a reduction in stunting in their respective villages.

30.

Governance and Institutional strengthening.

31. Addressing complex and multiple causes of malnutrition requires multi-sectoral coordination, multi- year commitment of resources and strong institutional and policy frameworks that place nutrition firmly in a multi-sectoral policy space conducive to effective programming. Coordination between different SUN platforms is key to scale-up interventions and to ensure that nutrition governance extends to provincial and district level planning and implementation.

32. In line with the UN Agenda, IFAD interventions in governance need to capitalize on existing structures to strengthen cross-sector mechanisms to extend multi-sectoral planning on nutrition at both central and decentralized level. Identified contributions in this area include:

- Support to the Government and multi-stakeholder platform in order to strengthen coordination across sectors at central and decentralized levels. One of the main findings of the mission is that SETSAN is highly involved at high level policy commitment, but these discussions and commitments do not trickle down at provincial and district level. IFAD can contribute to the coordination within the UN Network and the SUN network and extending discussions and engagement on nutrition-sensitive planning to the decentralized levels.
- Contribute to improved nutrition information system with the objective to:
  - Inform policy/Program/project formulation and design at central and decentralized level.
  - Provide evidence to leadership for policy change and programming
- Develop national capacity for design and implementation of nutrition-sensitive policy and programming (institutional and technical capacity) in the Ministries of Health, Agriculture, Fisheries, Public Works, Ministry of Gender, Children and Social Action, Education, Commerce and Industry and Water and Sanitation Capacity building for nutrition-sensitive agriculture interventions.
  - Particular focus needs to be made on the SETSAN. There are few nutritionists at the SETSAN at central level and none at decentralized levels. There is an urge to build capacity of non-nutritionists with different technical backgrounds who are engaged in the design and implementing of programmes and projects.
- Implementation of key nutrition advocacy and communication initiatives on nutrition, with a focus on effecting change in leadership at both central and decentralized levels.
  - Build capacity of civil society and grass root farmers organizations to represent the most vulnerable in the policy formulation processes and advocate for nutrition issues.
  - Sensitize policy makers on nutrition issues, "linking institutions to the reality". From different interviews with relevant stakeholders it emerged that there is a disconnect between institutions perception and the reality of vulnerable households. Organizing field visit with the aim to sensitize policy makers at both central and decentralized level is an example proposed to improve the perception and understanding on the nutrition situation in the different parts of the country.
- Develop actions in the areas of Multispectral and sectoral policy dialogue (e.g. facilitate the inclusion of nutrition specific and sensitive components into ESAN III and preparation for PAMRDC II);

Relevant Partners.

UN: FAO, WFP, UNICEF,
GoM: The SETSAN, Ministries of Health, Agriculture, Fisheries, Public Works, Gender, Children and Social Action, Education, Commerce and Industry and Water and Sanitation.

Land with tenure security strategy for 2018-2022

1. As indicated in the three sections of Article 109 of the Mozambican Constitution, land belongs to the State and cannot be privately owned, and as a tool through which livelihoods can be generated, the use and benefit of the land belongs to the Mozambican population. Article 110 proceeds by indicating that it is the State that will determine the conditions for the "use and benefit", and how these rights will be assigned to individuals or collectives.

2. After a long period of efforts stemming from the 1997 Land Law, Mozambique has been undertaking a significant shift in regard to its Land Policy and a new wave of opportunities has been under way, mainly driven by the creation of the new Ministry of Land, Environment and Rural Development (MITADER). The recently formed MITADER in fact absorbs all issues related to land from the previous Ministry of Agriculture (MINAG), now transformed into the new Ministry of Agriculture and Food Security (MASA); Territorial Planning and Environment from the former Ministry for Environmental Coordination; and Rural Development from the Ministry of State Administration. The current institutional context represents the first true opportunity to implement the full package of laws and legal instruments developed in 1997, and the creation of MITADER is the first big institutional change since the Politica Nacional de Terras of 1995.

3. In support of this line of thought, the Government of Mozambique (GoM) launched its ambitious programme, Terra Segura, which has the goal of issuing a total of 5 million land certificates and 4,000 community land delimitations. This marks a significant departure from a situation in which, though having land ownership still vested in the State, there is a willingness to recognize customary and good faith rights, thereby issuing use and benefit rights (Direito de Uso e Aproveitamento de Terras – DUATs).

4. While the Terra Segura has ambitious objectives, the institutional set-up and implementation strategy for delivery still needs to be fluidly operationalized. A Government Decree issued on the 9th of September 2015 outlines the roles and responsibilities of the new provincial department that mirrors the services of MITADER. Article 14 specifies the roles of the provincial services for lands which combines the services previously provided by the provincial land administration services (Serviços Provinciais de Geografia e Cadastro - SPGC), with territorial planning previously provided under the provincial environmental services. At the District level, there has not been a specific unit dealing with land administration. Instead, the responsibility has either been carried out by the district economic development services (SDAE) or infrastructure services (SDPI). It is expected that the Ministry of State Administration will indicate the new arrangement in the near future, thereby attempting to vest this responsibility in one of the two entities.

Land Law.

5. The Mozambican Land Law foresees three forms of acquiring DUATs, namely:

i) According the customary norms and practices – defined as occupation by local single and community persons, based on the customary norms and practices;
ii) As the result of good faith occupation (*boa fè*) – defined as occupation by individuals, that in good faith by good faith have been utilizing the land for more than 10 years. This kind of occupation is only applicable to national citizens;
iii) Through a request submitted to the State as foreseen in the land legislation. This is the only mechanism for acquiring DUAT applicable to both individual and collective groups.

6. In order to obtain a temporary/"forma" DUAT, the following the documents are required:

a) Application form adequately filled (i.e. this is available at the Provincial Services of Geography and Cadastre - SPGC);
b) Recognisable photocopy of the ID, DIRE or Statutes (i.e. the last one being related to collective groups or societies);
c) Draft of design of plot localization of the Applicant;
d) An approved business plan/ investment plan that defines the development of economic activities;
e) Minutes from the community consultation meeting;
f) A copy of the *edital* (public notice);
g) The deposit receipt;
h) A receipt confirming the payment of the annual fee.

7. Having gathered these, the applicant can submit the above documentation to the Cadastre Services, and then the request is then submitted to the competent authority for final clearance. Once all steps have been cleared and authorized a provisional DUAT is granted, with a maximum duration of 5 years for national citizens and 2 years for foreigners.

Land tenure security and agricultural value chain development.

8. In Mozambique land is a fundamental factor for secure production, whether in the agricultural or in the fisheries sector. There is a big potential for the protection and sustainable management of the country's vast natural resource base as Mozambique has over 36 million hectares of arable land and circa 40 million of natural forests (70per cent of the country), and terrestrial and marine protected areas account for circa 10per cent of the total territorial area. Of the land available only 10per cent is currently in use, and of this 90per cent is reconnected to the rural or family sector.

9. Land tenure regularization and security is high on the political and policy boards, and its importance has managed to trickle strongly into the larger development agendas of Government and donors in Mozambique. Furthermore, land tenure security is now fully recognized also by the private sector as having a strong influence on the business feasibility of investments with smallholder farmers on their rural land, and on the social relations with the communities and the development of long-term structures at rural level. The transformation of the agricultural sector in Mozambique requires an increased attention on land use planning, as a number of in-country stakeholder meetings (i.e. like the Agribusiness Forum held in Chimoio in 2017) have identified the necessity to rethink the functioning and design of territorial and spatial planning.

10. There is a great demand for land, which is dynamic and continuous, with possible negative effects on the environment and the socio-economic conditions of smallholder farmers. In order to reduce risks of excessive land areas being assigned to specific investors, and possibly leading to the relocation of rural communities, IFAD projects and other donor initiatives will have to align with the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT), in which IFAD is also engaged, together with FAO, the EU and WFP, amongst others. Livelihood development is highly linked to access to land, and the link between secure land rights and reducing poverty and food insecurity is very strong in Mozambique.

11. IFAD's experience through both the PROSUL and PROMER project, validates the linkage and relevance between land tenure security and the development of agricultural value chains. When looking at the results obtained by PROSUL under the cassava component, it is easy to note that land tenure regularization for smallholder farmers in the cassava VC was a farmer-mobilizing factor. Also the work done in the red meat VC with the delimitation of communities, and the subsequent zoning of grazing areas and livestock routes, will prove to be an added value in the management of activities for local communities. Lastly, the work done with Water User Associations (WUAs) in the irrigation schemes, and the related mapping and zoning of individual plots within the WUAs, offer a

strong basis for the organization, planning and delivery of produce on an all-year-long basis, fundamental factor to engaging successfully with the private sector actors interested in having regular access to horticultural products. The upcoming activities on land tenure security within PROMER are an additional confirmation of the importance land tenure regularization related to VC development, and both the experience in PROMER and that of other organizations already working on land rights in the 4 provinces of the project, will serve as a basis for the upcoming 4 years of additional project implementation.

Communities.

12. As indicated by the GoM, communities should participate in benefiting from any exploration or accord stipulated on their land, and the Government should strongly take the role of assuring this by assisting in the negotiation of partnerships in case of investments on community/individual land. Last, the Ministry underlined the major role Government will play above all in the management, protection and conflict resolution related to land and other natural resources. In doing so, the Government must also look at parallel aspects that guarantee that zoned and prioritized areas are ready to receive investment. This being done in light of the larger desire to guarantee the development of the agricultural sector, to guarantee food security within the country and last to generate income and employment for rural communities.

13. Land in Mozambique is highly attractive, receiving attention from a number of different sectors, ranging from agriculture to forestry, from infrastructure development and tourism (especially in the coastal and protected areas) to the mining sector, the latter mostly in the central and northern areas. In order to guarantee a positive outcome and interaction between local communities and outside investors, (mandatory) community consultations are held to allow the participation of the local population in the decision-making process. Local people are directly engaged as most activities related to exploration and development have direct impact on their livelihoods. Therefore, all investments should be promoted on the condition of guaranteeing that there is no negative impact on the existing livelihoods, but should also showcase and bring opportunities for an expansion of activities that directly involves the local people, be this through jobs, roads, or the sharing of benefits from the extraction of natural resources on community land. A last aspect, as suggested in a number of documents discussing legal rights and community consultation, is to guarantee that communities have the resources to carry on with the new activities, and that all conditions proposed in the agreements take into account the aspect of sustainable mid-to-long term implementation of the proposed activities.

Women and land.

14. Men still control more land than women in Mozambique, with the latter group still having fragile tenure and property rights. The discussion on women's tenure rights varies broadly when looking at the different in-country contexts, with a vast differentiation not only between rural and urban/peri-urban settings, but also with differences on land tenure security for women from region to region. Furthermore, differences also relate to the different forms of titling, be these individual titles or community land delimitations, which both present their own advantages and constraints on a case-per-case basis.

15. The attention given to land titling is visible also in the Plan of Action for Reduction of Poverty (PARP) that ended in 2014, for which speeding up the process of awarding land titles to local communities, more specifically women, was a key part of guaranteeing inclusive growth.

16. One of the key constraints women still appear to face is related to inheritance of land. In fact, though some reform efforts have been made, there are still many cases in which spouses are not the direct in line to succeed in the ownership of the deceased husband's land, unless explicitly indicated in the testament. Widows represent a

particularly vulnerable group, as "widow dispossession" is still widely occurring, even in the northern regions of the country where there is a strong matrilineal succession tradition.

17. It is therefore important for projects to put a strong focus on the targeting of women (and youth) when engaging in land tenure regularization.

18. It is interesting to note that women that obtain a land title appear to be more willing to increase their investment on the plot than men, according to various experiences in the country. It is therefore important to guarantee that women be active participants in the governance structures that accompany the community delimitation process for example. To date women have seen an increase in their presence in the various committees that follow up on the community delimitation processes, but this participation has been reported to be oftentimes pro-forma. In addition to this, it is worthwhile to consider that some women are likely to have received a lower level of education than men, hence attention should be provided in regard to the mainstreaming of legal information related land tenure regularization (i.e. widowhood, inheritance, etc.) and on the general aspects of the Constitution and the Land Law that seek to protect women's rights. For this to be effective provincial and district extension officers should be trained, so as to adequately equip lower administration levels with the necessary capacity to address women's challenges in a tailored manner. In fact, women in rural areas appear to have received more titles in percentage than their urban counterparts, as their role in the family's agricultural activities is regarded as being quite significant. Therefore focusing first on women in rural settings, especially women farmers and women in rural committees and other governance structures, will be a fundamental targeting activity for future projects and investments.

Natural Resource Management (NRM) and land tenure.

As visible in the ongoing PRODIRPA and PROSUL projects, the issuing of a land title as a final goal is in itself a narrow view of what could be the larger potential brought by the development of more structured Natural Resource Management Plans (NRMPs) and Community-Based Natural Resource Management Plans (CBNRMPs).

The *zoneamento da terra* (zoning) is intrinsic to the agricultural sector and constitutes an additional instrument that can guarantee a more sustainable rural development. Previous Community-Based Natrual Resource Management (CBNRM) initiatives are mainly related to the forestry sector, with a clear focus on biodiversity conservation or aimed at tackling land degradation. Most of the plans have not managed to deliver the broader identification of a large variety of resources, ending up in a very short and thin description of the potential that the natural resource base has. Little indication is given on investment potentials and the identification of specific areas set aside for investment in the community delimitation. There is a need for these plans to have a more practical usage, with the description of the delimited area being accompanied by a vision for investment and practical implementation suggestions. For this to be possible, communities have to be assisted in mapping and identifying the potential areas of investment, so as to allow local people to be in a well informed position when engaging with potential investors. Hence, for communities to fully benefit from their natural resources, NRMPs and CBNRMPs should be able to fully capture the (i) social capital, (ii) human capital, (iii) natural capital, (iv) physical capital, and (v) financial capital.

19. Partnerships in the land sector. IFAD has actively participated in the activities of the Land Donor Group in Mozambique. The activities of this group have been largely guided by the Embassy of the Netherlands, and have allowed the various donors to coordinate their various activities, finding initial synergies and exchanging studies and information on the projects that are currently ongoing, or in the design phase.

20. A general outlook on the activities of the donors participating shows as follows.

- The Government of the Netherlands has continued giving support to the land sector through its Capacity Building for Land management and Land Administration (GESTERRA) and their support to the *Iniciativa para Terras Comunitarias* (iTC); alongside the Dutch support, also the Government of Sweden and the Government of Denmark have also continued supporting iTC and its activities;
- The British Department for International Development (DFID) is has been contributing to three projects, working with 3 different implementing agencies (i.e. Namati, MICAIA Foundation, ORAM), targeting both land and natural resource rights and safeguarding the livelihoods and land or women, but also engaging in the piloting ot the "Community Land Value Chain" (CaVaTeCo) approach in Mozambique;
- The United States Agency for International Development (USAID), after the positive experience of the Supporting the Policy Environment for Economic Development (SPEED) program, has decided to finance a second phase, namely SPEED+, that is an extension and expansion of the previous program, from 2017 to 2020. This is coupled with a USAID-funded pilot program that seeks to guarantee more responsible land based investments, working specifically with the private sector in the sugar industry (i.e. Illovo).
- The World Bank (WB) has recently launched two large projects, both implemented through MITADER and the recently instituted National Sustainable Development Fund (FNDS): the Agriculture and Natural Resources Landscape Management Project (*projecto SUSTENTA*) and the Mozambique Forest Investment Project (MozFIP). These are further complemented by a large grant working in the same regions, Zambezia and Cabo Delgado, in which MozFIP is active.
- Lastly, the EU, through both the Rural Development programme and the *Programa de apoio a Atores não Estatais* (PAANEII – Program in support of non statal entities), the latter having a possible call for proposal that is directed to natural resources and participatory management, hence possibly encompassing proposals that include land tenure security as one of their acitivities.

21. **Relevance for IFAD ongoing projects**. A number of projects currently being implemented across Mozambique directly overlap and/or have direct linkages with the work of IFAD-supported projects. A first example is the work done by iTC. The work done by the organization on community delimitations has clear overlaps in the activities of both the PROMER project area, and many of the aquaculture producers targeted by the PROAQUA project are part of communities that have benefited from the iTC led community delimitations.

22. In the case of PROMER, the upcoming WB SUSTENTA project will be overlapping with the project in both the Zambezia and Nampula province, in 4 districts, and possible coordinated activities could be possible in the future. PROMER in fact shall be delivering activities related to land tenure regularization in the additional financing that extended the project for an additional four years.

23. For PROSUL, the numerous activities related to land tenure development and its linkage to agricultural development in numerous other projects, all represent a chance for exchanges and possible partnerships. Partnerships that PRODIRPA is looking to have in its work on land tenure security for coastal communities. Little effort has been directed towards guaranteeing land rights for smallholder farmers and fishing communities, as most of the focus has been directed to farmers working in on-field cultivations. The case of PROAQUA anyhow shows how the importance of land tenure security can be relevant for in-land fishing activities. The development of the aquaculture sector will have to strongly consider the location of ponds and the ownership of the land on which this infrastructure will be developed, and how it will be managed. In addition to PROAQUA, both the PROPESCA and PRODIRPA projects also showcase the necessity for future projects working on fisheries to reflect on ways through which land tenure security can be guaranteed to producers that may not be working the land assigned directly, but may

engage with relevant activities that protect their livelihoods and natural resource base. In fact, the fisheries sector has for a long time not referred to the rights of communities, with little recognition of community claims over fishing resources, but also on their rights to participate in the decision-making process around the fishing resources.

The COSOP exercise showcases the importance of land tenure for rural communities in Mozambique, and solidifies the concepts through which tenure security positively impacts a number of sustainable livelihood assets, both natural and economic. Land tenure regularization will allow the IFAD-targeted beneficiaries to plan ahead, hence increasing their resilience to economic stresses and shocks. Furthermore, in consideration of the fact that land is vested in the State, land titles will guarantee that all investments developed on titled land (i.e infrastructure) will be secured and guaranteed to be compensated in virtue of any possible reclaim and resettlement.

Land tenure security will therefore have a direct positive impact on both rural poverty eradication, and also on food security and livelihood generation. In order to achieve the first two in fact, households need to be placed in the condition to create economic opportunities, and in most cases, securing land tenure security is the stepping stone. Communities with strengthened land tenure rights can plan and enter into better contractual agreements with investors, and also represent a more viable and secure investment for the private sector seeking to engage with smallholder producers.

IFAD's comparative advantage in the land sector.

IFAD has long experience of investing in Mozambique, and land tenure security and land governance have always represented a key aspect of the IFAD-supported projects. The current portfolio fully reflects this as four projects and grants are directly engaging with land tenure activities (PROSUL, PROMER, PROPESCA and PRODIRPA), and over the past years of implementation, land tenure rights have been recorded as relevant also for the aquaculture grant PROAQUA. IFAD is a permanent and regular participant in the Land Donor Group, and has built a strong relationship with all the Ministries working in – or closely linked to the land sector. The projects have benefitted from a strong support and relationship with MITADER, MASA and MIMAIP, and furthermore with specific national directorates such as the National Directorate of Land (DINAT) and the National Directorate of Territorial Planning (DINOTER).

24. The IFAD investments directly contribute to the GoM's Vision 2025, the PEDSA and the goals of the Terra Segura program, aligning IFAD to the Government's development goals, but also to the investment trends of other donors and partners in Mozambique. A number of parallel activities and collaborations have already been identified, and will hopefully be strengthened and consolidated in the upcoming COSOP period.

It is therefore important for all future investments in the country to guarantee a continuity in relation to the support given to the land sector, first in virtue of the ongoing projects and the positive lessons that can be learned and shared in the remaining years of their project life, but also to ensure that the future designs capture the lessons learned, and improve the support IFAD is giving to the development desires of rural communities in Mozambique.

RB-COSOP Results Framework Logic for Land Tenure
Country Goal for land tenure: **INCREASE ACCESS TO SECURE LAND TENURE FOR RURAL PRODUCERS (INLAND and COASTAL)** **Major Land Tenure issues that need to be addressed through COSOP priority interventions**: Access to land titles (DUATs and delimitations), access to land for vulnerable groups (especially women and youth), improved land management and territorial planning, improved mapping and

cadastral surveying. In particular: -			
COSOP Land Tenure objectives	**Major issues**	**Actions**	**Results**
Objective 1 Promote access to land for rural people, specifically for vulnerable groups such as women and youth	- Little prioritization of women and youth in access to land - Lengthy (and at times costly) procedural processes	**Promote facilitated access to land, and prioritized access for vulnerable groups**	- Increase in women and youth accessing land tenure rights, thereby providing space for an increase in productivity and livelihood generation - Land tenure regularization is facilitated and processes are supported and simplified
Objective 2 Increase activities related to sustainable land management and Community-Based Natural Resource Management (CBNRM) for both inland and coastal communities	- Land degradation, deforestation and overfishing, etc., are high - Little work done on CBNRM and on additional livelihood generation activities linked to secured land - Limited active participation of communities in the land planning process	**Improved land management and territorial planning, coupled with CBNRM activities in fishery and agriculture, guarantee long term sustainability of the natural resource base**	- Reduced land degradation, deforestation, overfishing, etc. - Improved natural resource base - Creation of mid/long-term planning based on community-led initiatives - Increased alternative livelihood generating activities
Objective 3 Improved mapping and surveying of land; and value-chain focused planning and mapping	- Limited government provision of technology to map and survey land at District (and at times Provincial) level - Low incidence of territorial planning stemming from land management plans and land tenure regularization - Low linkage of mapping exercise to value-chain development activities (in all realms of agriculture and fisheries)	- **Contribute to improved information systems** - **Support *Terra Segura* program in the mapping of plots** - **Contribute to improving the Districts' access to well structured mapping, surveying and planning**	- Improved access to technology for District and Provincial officers, together with increased capacity on land tenure regularization - Improved information systems - Direct support to *Terra Segura* program - Value-chain specific planning and monitoring

	- Little context/production specific land mapping		

How Land Tenure Objectives are linked and contribute to the overall COSOP Strategic Objectives: **SO 1:** To enhance access to and use / management[128] of water, land and other means of production for sustainably increased food security, nutrition, incomes, and livelihoods using gender and youth sensitive approaches. **SO 2:** To develop strategic partnerships for inclusive and remunerative agri-food value chains (and their enterprises) that are resilient - including productive climate smart rural infrastructure providing increase employment opportunities. **SO 3:** Financial inclusion, access to innovative and appropriate, affordable and innovative financial products, financial service and technical support responding to the needs of the various target groups, their livelihoods and enterprises.	
Land Tenure Objective 1 Promote access to land for rural people, specifically for vulnerable groups such as women and youth	Related to **SO1, SO2 and SO3.** Land tenure is key to NRM and is closely linked to income generating activities (SO1). Also, delimited communities can enter in partnerships with private sector once land tenure is secured (SO2) and access to finance is guaranteed to infrastructure developed on titled land (SO3).
Land Tenure Objective 2 Increase activities related to sustainable land management and Community-Based Natural Resource Management	This is in line with the objectives of **SO1** and **SO2**, as it meets both the requirement for sustainable NRM, but also guarantees community participation in the elaboration of partnerships and their will to invest in value chain development
Land Tenure Objective 3 Improved mapping and surveying of land/ value-chain focused planning and mapping	Improved mapping contributes to **SO1, and SO2**. Mapping and surveying of plots positively influence all aspects, from production and planning, to infrastructure development.

1. GOVERNMENT GOALS FOR LAND TENURE

The Government's Vision 2025 and the PEDSA both reflect the GoM's strong focus on land tenure regularization. This will be done through the Ministry of Land, Environment, and Rural Development (*Ministério da Terra, Ambiente e Desenvolvimento Rural*, MITADER), which has developed its *Programa Estrela, Desenvolvimento Rural Integrado e Sustentável* (Integrated Sustainable Rural Development Program) for the period 2015-2019, focusing on five strategic priorities for rural areas in Mozambique:

1. Knowledge and technology transfer (*Mais Saber*);

[128] This is also inclusive of: climate resilience, natural resource management, etc.
[#] Reporting on Outcome and Milestone indicators will be disaggregated by: Youth, Women, Men

2. Market-related infrastructure (*Via Rural*);
3. Access to finance and financial services (*Um Distrito, Um Banco*);
4. Improved water supply (*Agua Viva*); and
5. Expanded energy supply (*Quinta da Energia*)

As part of this vision, the GoM, through its *Terra Segura* (Secure Land) will seek to regularize 5 million individual land titles and 4,000 community land delimitations.

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Key file 1: Rural poverty and agricultural/rural sector issues

Priority Areas	Affected Groups	Major Issues	Actions Needed
Small producers' productivity and profitability	Smallholders Small-scale artisanal fishers	• Food insecurity and malnutrition • Rudimentary tools/fishing equipment and limited use of inputs in agriculture • Poor access to knowledge, extension and other support services • Difficulty in accessing markets • Limited access to credit and other financial services • High post-harvest losses due to poor harvesting, and handling • Powerlessness and social economic and political marginalisation	• Improved access to know-how through reform of extension services and support to pluralistic provision of support services • Access to financial products that enable producers to invest in modern equipment, inputs and technologies • Improved access to markets, through construction/ improvement of roads and market-related infrastructures. • Public-private partnership for improving availability of ice-making plants. • Support institutional development of producers' organisations.
Environment, climate and natural resource management issues	Farming, livestock and fishing communities; extension and technical officers, national and local governments.	• Vulnerability to extreme weather events e.g. drought and floods. • Degradation of water and land resources. • Environmental pollution • Pests and disease outbreaks. • Food contamination • Inadequate early warning systems, weather and climate information. • Low environment and climate risks awareness. • Inadequate policy and institutional coordination. • Insufficient extension services and technical capacity. • Social risks such as exacerbated poverty, conflicts and gender inequalities.	• Promote climate smart land and resources utilization and management techniques. • Rehabilitated degraded land and water resources. • Monitor and control environmental pollution • Promote integrated pest and disease management approaches. • Invest in early warning systems, weather and climate information dissemination. • Promote awareness creation on environment and climate risks and their mitigation at national and local levels. • Improve policy dialogues and institutional coordination at national and local levels. • Build or strengthen technical capacity and expand climate smart extension locally and nationally. • Develop strategies to manage social risks.

Advisory/business development services	Smallholders Small-scale artisanal fishers	• Persistence with ineffective and unsustainable extension methods, centred on agricultural production • Top down, scientific/technocratic approach, not aligned to farmers' needs or the realities of household finances and markets • Inadequate demonstration, dissemination focus on rainfed subsistence agriculture and smallholder livestock systems • No real farmer voice in services provision Limited relevance of most research/ technology development • Absence of effective research-extension-farmer relationships	• Enforce reform policy: province, district extension ethos and capability • Re-orient extension to community focus with locally resident farmer and women promoters/resource persons • Upgrade local public sector service provision capacity/communication • Facilitate, support and optimize the provision of support services by private ,farmers' organisations and NGOs through outsourcing/contract services • Empower farmer groups/associations to link to service decision makers • Intensify dialogue on research and means of dissemination • Focus on farmer defined subjects, including socio-economic/market aspects • Emphasize information, communications and marketing advisory services

Priority Areas	Affected Groups	Major Issues	Actions Needed
Gender	Rural women and women-headed households	x Inadequate representation of women and their interests in producers' groups and management committees x High illiteracy rates x Limited opportunities for livelihood diversification and profitable activities x Limited access to agricultural support services and to land x Traditional gender ideologies x Constrain women's mobility and access/ ownership of means of production x Lower access to education and health	x Implement gender sensitive poverty reduction initiatives. x Provide female vocational/literacy training including marketing/business x Promote women in leadership positions and representation of their interests in rural organisations x Promote livelihoods diversification by improving women's participation in trading/processing x Assist women to gain and maintain access to productive resources x Develop inclusive approaches to develop access to services x Ensure strong women participation in community-based mechanisms for implementation of Land Law

Poverty and HIV/AIDS	Rural communities	x High rates of HIV/AIDS transmission x Inaccessibility to health facilities and ineffective STI treatment and prevention services. x Poor access to basic services and social infrastructures. x HIV/AIDS orphans.	x Information Education and Communication aimed at HIV prevention. x Improving access to health services and social infrastructures.
Marketing, Trading, Input Supply and Rural Finance/Credit	Smallholders Small-scale artisanal fishers Traders Agribusiness	x Poor access to inputs due to distance, limited competition and low crop/fish catch value x Market information limited, not easily accessible to small producers x Local transport for produce not available or excessively expensive x Product quality is often below that demanded, especially internationally x Policies/legislation not conducive to free, dynamic market and not supportive of producers' associations x Lack of harmonised policy and fragmentation of donor action in rural finance sector x Limited availability, accessibility and risk of production credit x Rural financial services problematical, high cost x Limited tradition/ development of savings/credit culture	x Improve roads network, local marketing facilities (via group/private sector) x Promote competition between traders and linkages between farmer groups/associations and buyers x Boost province and district market information centres, radio broadcasts x Encourage competition/transport improvement x Provide raining/exposure on quality/packing as part of group activity x Lobbying/dialogue with Government x Develop a strategic policy/legal framework and support innovative approaches in rural finance (through RFSP and other projects) x Facilitate greater outreach of banks/financial intermediaries and capacity build/support institutions x In conjunction with improved farming practices/technology, promote improved farmers access to credit x Incorporate financial awareness/control principles in farmer group training

Producers' organisations	Smallholders Small-scale artisanal fishers	x Limited number of performing farmers'/fishers organisations able to provide sustainable services to members x Low level of formalisation and federation level organizations x Limited farmer organisation and voice in local/district governance x Lack of linkages between central and local levels, an imprecise policy agenda and low capacities to develop policy options within UNAC	x Promote institutional building and develop capacities to provide services to members x Promote participation of producers organisations in consultation platforms at local/national level, and assist them in developing their own (policy) positions x Assist UNAC in restructuring, developing its own policy agenda and related policy positions

Key file 2: Organizations matrix (strengths, weaknesses, opportunities and threats [SWOT] analysis)

INSTITUTION	STREGHTS	WEAKNESSES	OPPORTUNITIES/THREATS	REMARKS
MITADER (Ministry of Land, Environment and Natural Resources)	-Has the legal mandate to oversee environment, land and natural resources matters in the country. -Regulations and process in place to protect land and water resources. -The climate change, environmental licensing and environmental awareness departments have qualified staff. -Has a directorate for land administration (DINAT) and the National Directorate for Territorial Planning and Resettlement (DINOTER). -Already working with other donors in various projects.	-Lower presence at local level. -Weak coordination across different departments. -Limited resources and staffing.	O: Supports adoption of environmental standards and regulations. T: limited staffing may pose implementation challenges.	-Need for stronger coordination among relevant departments. -Learn from ongoing funded projects. - look into set environmental standards for reviews and approval of projects.
National Institute for Disasters Management (INGC)	-Gathers and keeps databases/inventories of all weather, climate and disasters information. -The institute is decentralized in provinces and districts affected by natural disasters. -Has created and trained local committees for risk management. -Has in-house expertise. - Is complemented by the National Institute for	-Weak coordination among stakeholders. -Limited staffing and resources thereby slowing activities. - Forecasting and dissemination system is still not effective. -Does not cover all districts.	O: Information can be tailored to address farmer needs. O: Can gain information through coordination and synergies with other government departments e.g. MITADER. T: limited countrywide coverage is likely to exacerbate farmers' vulnerability to climate change.	-Strengthen coordination with other relevant departments, information dissemination to farmers and wide coverage or extension.

	Meteorological Service – (INAM)			
FAO	-FAO has the mandate, the corporate advantage and a well-established experience in promoting nutrition through long term food system approaches FAO has a well-established presence at country level and is well connected with relevant nutrition stakeholders at country level	It is a big organization with heavy bureaucratic system. Collaboration agreements procedures may be delayed.	- FAO has produced several capacity building materials and training modules that can be readily available for use. - FAO has a FIRST officer who seats at the SETSAN secretariat to guide FAO support to the government in food security, agriculture and nutrition issues.	
WFP	WFP is part of the country nutrition emergency team. Together with the Ministry of Health- Nutrition Unit, UNICEF and other NGOs operating in the country is heaviliy engaged in addressing acute malnutrition challenges.	WFP's approach on nutrition is narrowly focused on short emergency coping interventions to tackle acute levels of malnutrition.	WFP has a unique initiative "close the nutrition GAP". It is a tool designed to collect data and information on why diets are not adequate in certain regions/districts. This information could be vital for region-district-specific nutrition-sensitive planning[129]	
UNICEF	UNICEF is also part of the country nutrition emergency team. Together with the Ministry of Health- Nutrition Unit and WFP is heavily engaged in tackling acute malnutrition. The country office collects periodic data at district/provincial level on acute malnutrition rates.	Same as above. UNICEF is uniquely focused on tackling acute malnutrition challenges in the country.		
NEPAD/CAADAP	NEPAD is making a huge effort in providing guidance to African countries in designing nutrition-sensitive agriculture investment plans and policies. This makes it	UN- NEPAD interactions and exchanges during programme/project planning are not as		

[129] Interview with WFP consultant Ms Nicole Nguenha

	a relevant partner to engage in the processes to align IFAD interventions with regional and national CAADP policy processes on agriculture and rural development planning.	strong and frequent as they should be.		
SETSAN Central and decentralized level	The SETSAN is the multisectoral coordination body for nutrition.			
Ministry of Health	The Ministry of Health is one of the main actors within the SETSAN multisector platform for nutrition. It is heavily engaged on nutrition issues. SUN focal point seats in this ministry		The Ministry of health[130] together with relevant UN agencies and organizations delivers micronutrient supplementation and treatment for cases on acute malnutrition. Monthly data is collected and available for each districts of intervention. This wealth of information can be used to make region/district specific IFAD interventions.	
FAO	- FAO has a long experience on land tenure in the country - FAO has worked largely at global level on the Voluntary Guidelines on the Governance of Tenure issues (VGGTs) - Though not active it has recently reached an agreement to work closely with the World Bank on a large forestry project with a land component	-It is a big organization with heavy bureaucratic system, and collaboration agreements procedures may be delayed. - It has not worked directly on large land projects over the past years.	- FAO has produced a lot of material in the past and has a direct linkage with all ministries interested in land tenure security - FAO has an NRM officer in the ICO, and brings a vast knowledge base from its HQ - FAO has prior experience of working with IFAD on land tenure security	
Government of the	- Has long history and	- Small team	- Important to understand	

[130] Interview with Ms Elda Famba Ministry of Health Nutrition Unit

Netherlands (and partner embassies, i.e. Sweden, Denmark):	knowledge in relation to supporting the GoM in land tenure - Has supported the *Iniciativa Para Terras Comunitarias* (iTC) over the past years. - Coordinates the Land Donor Group - Has a strong relation with the other donors and embassies investing in land tenure, and with DINAT and MITADER (through the support to GESTERRA		the outcomes of the work done with GESTERRA and the future operations regarding land tenure security - Great knowledge and sharing opportunities	
World Bank	- It is currently probably the largest investor on land tenure security activities in Mozambique - It is giving direct support to MITADER and has 3 projects currently being implemented through it, all with strong land tenure components - Strong focus on forestry and private sector, and value chain development, linked to land tenure regularization	- As projects have recently been launched, it may be difficult to envision partnerships on land tenure soon (unless new projects are launched) - Strong focus on Zambezia and Nampula, not much in the South and North (East and West)	- If a new project were to be designed, IFAD would have many opportunities to partner given its nationwide presence - There is a scope for partnership in the fishery sector, as the fisheries sector has done little on land tenure for coastal communities - There is overlap with PROMER, and parallel/coordinated activities can be foreseen with SUSTENTA	
USAID	- Had a positive output on land tenure security from the SPEED program, now in its approved second phase SPEED+ (with a larger	- Not easy to partner with, as is not working directly through the entities IFAD is	- Has many projects, and future partnerships could be envisioned, at least in regard to KM	Could also link with USAID for WEIA surveys

	budget) - Does key work on policy dialogue and research - Has numerous projects focusing also on value chain development - Is piloting a project on Responsible Land Based Investment	currently supporting		
DFID	- Has projects on land with different scopes, one specifically working on women - Has a history of investing globally on land tenure as a development agency - Is currently working on a value chain project too (CaVaTeCo), which may be relevant to IFAD	- Currently projects are not very big - No large project focusing exclusively on land tenure	- There is potential to partner in upcoming projects, as DFID too has a strong value-chain focus - Strong production of knowledge on land tenure globally - Work with alternative livelihoods (i.e. "Safeguarding livelihoods of women baobab harvesters through improved land and natural resources governance")	
Ministry of Land, Environment and Rural Development (*MITADER*)	- It is now the designated Ministry for land - It has created a set of entities within it to coordinate future projects (i.e. FNDS) and has absorbed some relevant bodies from MASA (i.e. DNDR) that implement IFAD projects - It is the direct responsible of the *Terra Segura* program - Both DINAT and DINOTER are seated in MITADER	- It is a relatively new Ministry, and though being strong at central level, at Provincial (DPTADER) and District (SDAE or SDPI), the situation may be different - The *Terra Segura* program is ambitious, and staffing and	- This is a key Ministry also for IFAD, and the work done with PROMER through DNDR well expresses this. - IFAD directly contributes to the Terra Segura goals, and a continuous collaboration and coordination with DINAT is topical in the implementation of land tenure activities in all ongoing and future projects	

		provision of tools may not be enough to support the program goals and objectives		
Ministry of Agriculture and Food Security *(MASA)*	- Strong presence throughout the country. - In-house expertise present. - Mandated to oversee agriculture interventions in the country. - Has an environment focal person.Has a strong knowledge of land tenure, as it was housed in MASA, and has probably the strongest field presence at both Provincial and District level - It is a key partner to IFAD as PROSUL, PSP and PRONEA are under MASA - It currently hosts FDA, which is the direct implementer of the PROSUL project - It has key knowledge of agricultural value chain development, and the relevance of this for land tenure	- Limited extension services on the ground. - Limited resources vis a vis expected outputs. - Staff time required by the project may slow down other activities. - It is a big entity, and now has to coordinate activities with MITADER in regard to land tenure security	- synergies with other donor funded programs in the ministry - In-house expertise in agriculture, extension, irrigation, environment - slow delivery due to limited time and capacity.There is large scope for partnerships, especially in relation to value chain projects, where tailored land tenure interventions are necessary - MASA has better presence at Provincial and District level, and can facilitate the implementation of activities on land tenure	- Important to have a project implementation unit to do the core work and engage the Ministry for more strategic and less time consuming work.
Ministry of Seas, Inland Waters and Fisheries *(MIMAIP)*	- Legally mandated to oversee the development of the fisheries and aquaculture sector. - Ministry has departments to deal with specific aspects such as research and	- Limited resources and staffing. - Weak coordination with the environment and agriculture ministries.	- the upcoming research center is likely to contribute to the aquaculture sector positively. - Aquaculture value chain is still underdeveloped and	- Need to coordinate with other ministries to build synergies. - Investment in capacity building is important.

	planning. - Investments being made to build a research center. - In-house qualified expertise present. - The ministry is decentralized to a limited extent. - Hosts IDEPA (which merged the former INAQUA and IDPPE), hence is relevant for any future aquaculture project - Has a strong presence in coastal areas - Has prior knowledge of CBNRM initiatives	- -Limited expertise in aquaculture across the country. - Not as strong in presence in the inland - Little experience in land tenure security for coastal communities	thus more investments are required, yet government has limited resources. - Hosts PROPESCA, PROAQUA and PRODIRPA, which are both working on fisheries - Is a key partner for future aquaculture projects	

Key file 3: Complementary donor initiative/partnership potential

Donor/Agency	Nature of program/project	Status	Lead agency	Partnership/complementarity potential
African Development Bank	COFAMOSA irrigation project.	Started in 2016, on going	Ministry of Agriculture	-Information exchange on irrigation potential, technologies, and value chains, and water resource management.
	Enhancing climate resilience through sustainable land and water resource management.	Started in 2012, on going	Ministry of Finance Limpopo Basin Authorities	-Exchange successes and lessons to inform scaling up of water infrastructure development (e.g. small-scale irrigation, water harvesting, restoration of natural habitats, and livelihood diversification).
	Rural water supply and sanitation program.	Project awaiting approval.	Ministry of public works and housing	-information sharing on provision of new water supply facilities for rural communities, rehabilitation of existing water facilities, sanitation facilities, public awareness and education, and capacity building.
World Bank	Agriculture and natural resources management project	2016-2021	Ministry of Agriculture	-Information exchange and synergies on securing land tenure rights, integrated landscape management and restoration of the natural resource base. -Building on established partnerships with

				institutions/persons.
	Mozambique forest investment project	2017-2022		-Information exchange and synergies on integrated landscape management. -Strengthening enabling conditions for sustainable forest management.
GEF	Land management, biodiversity conservation, and climate change adaptation	Past and on going	FAO, World Bank, UNDP, UNEP, UNIDO	-Successes and lessons information exchange. -Request funding from GEF for digital land degradation surveillance work.
European Union (Global Climate Change Alliance)	Support project to the Government of Mozambique for the mainstreaming of climate change into policies and strategies and to adapt to climate change impact	On going	MICOA, MITADER, INGC	-Collaboration on building the institutional capacity and technical expertise of government departments to mainstream climate resilience into policy and practice. -Collaborate on awareness campaigns on climate change and environmental issues.
Clean Development Mechanism	Previously implemented projects in renewable energy (e.g. improved cook stoves)	Past		-Learn and gain insights on the renewable energy sector, promoting energy efficiency, reduction in carbon emissions and carbon trading; and improving living conditions and health through clean energy.
GIZ	Adapting to climate	2015-2018	National	-Synergies building and

	change project		Directorate of Water Resources Management (DNGRH), National Institute of Disaster Management (INGC)	information sharing on climate smart water catchment management; and institutional integration of early warning systems.
FAO, UNDP	Implemented various projects in the past on adaptation to climate change, food security, land and water management, forest management, and aquaculture		FAO, UNDP	-Gain insights on successes, lessons and opportunities for future investments in land and water resources management, aquaculture, and climate change adaptation.

Key file 4: Target group identification, priority issues and potential response

Target Group	Main Characteristics	Main Challenges	Coping Mechanisms	COSOP Priority Needs
Small holder producers (agriculture)	-Food insecure and malnourished; households live at or below the poverty line, and many live in extreme poverty -Subsistence oriented production with limited access to formal markets (20per cent) -95per cent live on properties of less than 3 hectares -Mostly operate as individuals & only 7.2per cent are organised in small informal associations -Low commercialization due to lack of resources, skills and markets	-limited access to credit, knowledge, extension, technology, infrastructure and productive inputs -highly vulnerable to extreme weather conditions lacking access to climate and market information -livelihoods and production hindered by lack of water -High post-harvest losses due to poor harvesting, and handling techniques -Weak extension system – top-down – not responding to farmer's needs -low adoption of innovations beyond demonstration plots - limited/no value addition opportunities	-Production from own resources (financial, family labour) with limited outside assistance. -Most marketed produce is sold through informal traders/intermediaries (*maguewa*) - Household finances managed outside formal channels -Persistence with ineffective and unsustainable extension methods -Farmers forced to sell to 'rent seeking' companies	-Policy/institutional reforms for strong extension systems that respond to the farmer's needs - Access to knowledge, information and appropriate technical assistance approaches that promote ownership, productivity, profitability and overall resilience -Access to sustainable natural (esp. water & land tenure) and productive resources -Empowerment for a strong farmer voice in the farming ecosystem -- research, services, inputs, markets -Public-private-producer partnerships for sustainable access to services, finance, inputs, markets, and the overall inclusion into value chains
if *artisanal fishers and small-scale aquaculture producers*	*Specific characteristics* - Early development stage -Weak extension system – top-down – not responding to farmer's needs -Weak farmer – extension-research relationships	*Additional Challenges* -inadequate attention and investment to development of the sector - agriculture/livestock sectors more advanced -market failures in the chain of production & inputs -difficult to access inputs for aquaculture (quality fingerlings + fish meal) -poor infrastructure -High post-harvest losses due to poor harvesting, and handling techniques	*Specific Coping Mechanisms* -Persistence with ineffective and unsustainable extension methods -local feed formulations	*Additional Needs* - institutional reform /capacities (extension, research) to promote the development of artisanal fisheries and small-scale aquaculture - formal credit to the fishing sector -access to infrastructure -access to social services -access to productive resources – infrastructure, quality fingerlings, fish meal
Emergent Farmers *(small/medium commercial farmers)*	*Specific characteristics* -new generation of smallholder farmers includes both tenured, seasoned, experienced farmers bringing	*Additional Challenges* • *There is a need to increase both informal and formal farmer organisations – for learning, opportunities for aggregation, access to markets, etc.*	*Additional Coping Mechanisms*	*Additional Needs* • *Greater opportunities for value addition* • *Access to services* • *Understanding nutritional needs for dietary diversity and to reduce stunting*

These farmers are supported by projects to act as Lead Farmers – for demonstration and learning purposes for new agric technologies	dynamism, technical change and commercialization of African agriculture - cultivate more than 3 ha and up to 20 ha of land - occupying a transitional phase between small-scale, semi-subsistence production and larger-scale, more commercial farming -can provide remunerative employment to people unprofitably engaged in semi-subsistence agriculture - better position than smallholders to adopt and adapt technologies to local contexts -many emergent farmers may have achieved their scale of operation through what we will call a *lateral* entry into farming whereby an individual primarily engaged in non-farm employment was able use savings to purchase land and farming assets	• *Land tenure for infrastructure relating to reduction in post-harvest loos, value addition* • *Electricity for cold storage, value addition, enterprises* • *Access to appropriate financial products*		
If women, female-headed households	*Specific characteristics* -52per cent of the population are women, 72.2per cent of women live in rural areas, 24.1per cent head households – HDI are low -participate in conservation, transformation, storage and marketing of food -key custodians of family food & nutritional security	*Additional Challenges* - limited participation in decision-making on productive and economic matters -more affected by HIV/AIDS than men -constrained by gender relations and cultural and societal norms which limit access/ownership to land, and livestock (cattle) and participation in extension and training -less access to education/vocational training than men	*Additional Coping Mechanisms* - engaged in marketing, selling and processing - involved in rearing of small livestock (chickens, goats)	*Additional Needs* • *livelihood diversification to promote women's participation in trading, agro-processing and value addition* • *equal participation and benefit from economic opportunities along the value chain* *-Assistance to gain and maintain access to productive resources* *- Functional literacy & entrepreneurship skills & training in small business management* *-participation and leadership in farmer organizations & other common interest groups,* *- Household methodologies* *-targeted specifically on nutrition &*

				conservation interventions, *-train women to be trainers of other women* *Understanding nutritional needs for dietary diversity and to reduce stunting*
If young women and men	*Specific characteristics* - defined as population aged 14 – 35 years of age -Non-homogenous group -Youth unemployment varies by geographic location with roughly 8per cent unemployment in rural areas and 36per cent in urban areas, but these figures mask a high underemployment rate (80per cent). -illiteracy among women is approximately 60per cent, versus 30per cent for men -3 times more women are affected by HIV/AIDS in the age 15 – 24	*Additional Challenges* - financially excluded and considered as risky - limited knowledge/awareness of opportunities for enterprise development - underrepresentation in socioeconomic and political structures -young women suffer from the highest level of unemployment	*Additional Coping Mechanisms* -seasonal labour on farms - limited role as intermediaries	*Additional Needs* -financial education and literacy & appropriate products - opportunities for high-potential production in high value, short cycle crops -access to modern technologies -business opportunities along the value chain e.g. extension service support, aggregation, and transportation -skills and capacities through Youth Incubation -innovation challenge funds *Understanding nutritional needs for dietary diversity and to reduce stunting*
Rural traders	*Specific characteristics* -engaged in non-farm, non-livestock, cash (or in-kind) income generating activities. - businesses owned by single or multiple individuals (members of the same household or not), - classified as value chain intermediaries, service & input providers, traders (informal) -buy low from the farm gate and local markets and sell at higher markets in the main market in Maputo -ability to decide the farm gate price – at times even lower than the cost of production	*Additional Challenges* -tend to operate with limited support from governments. - mostly informal -- limited membership in groups, associations -no formal contractual arrangements with farmers -limited access to market information -high transportation costs	*Additional Coping Mechanisms* -rent-seeking behaviour with smallholder poor farmers	*Additional Needs* -economic/enterprise opportunities that take advantage of complementarities in the farm and off-farm -formalization – organized groups
If vulnerable and socially excluded	*Specific characteristics* -often child or female-headed household	*Additional Challenges* - HIV/AIDS retards agricultural production, and	*Additional Coping Mechanisms* -exchange of labour in the farm,	*Additional Needs* -integrate into development activities that are

i.e. *-HIV/AIDS affected* *-People with disabilities* *-Elderly*	- Women are more vulnerable to HIV infection than men. The HIV prevalence rate among women is 15.4 per cent, while among men it is only 10.1 per cent - Among adolescents and youths aged between 14 and 24, 6.9 per cent are infected – in this age group women are three times more likely than men to be infected	threatens food security as the affected often lack manpower at crucial moments of agricultural productivity -decrease in labour and depletion of household resources often leads to i) reduction of the cultivated area; ii) minimal soil conservation measures; iii) decreases in productivity; iv) abandonment of cash-crop production in favour of food or subsistence crops; & v) less intensive livestock production, which can result in a less varied and less nutritious diet -other HIV/AIDS impacts include delay in farming operations, loss of farm management skill - traditional land tenure systems may leave some households without land -women can lose access to land and assets, labour, inputs, credit, and support services -Women more exposed due to high vulnerability and uncertainty of income -Households of AIDS survivors have to cope with assets depletion - All factors (HIV/AIDS, Disabilities, Elderly) influence the availability of other household members for productive activities, while they are tending to their needs	family, and community units, as well as in the form of gifts, food and monetary help -older women are often caregivers to the sick & orphaned grandchildren -Children can be forced to increase farm labour contribution & and dropping out of school	sensitive to their unique situations and can be undertaken in the vicinity of households as participants and beneficiaries -diversify production e.g. multi-cropping systems - access to markets, crop storage, seed access, health centres, schools, and other infrastructure - Training and capacity building on production, business skills on to facilitate household /group enterprise development -Mentoring and coaching to build awareness of innovative enterprise development opportunities along the ag. Value chains - HIV/AIDS awareness included in extension -Nutrition, dietary diversity & food management included in extension