JUIFAD Investing in rural people

Executive Board

President's memorandum Proposed additional financing to Republic of Angola

Smallholder Agriculture Development and Commercialization Project in Cuanza Sul and Huila Provinces (SADCP-C&H-SAMAP)

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Action: The Executive Board is invited to approve the recommendation for the

proposed additional financing contained in paragraph 47.

Technical questions:

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Project delivery team		
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Technical Lead:	Putso Nyathi	
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Financing summary

Initiating institution: IFAD

Borrower: Republic of Angola

Executing agency: Institute for Agricultural Development, Ministry of

Agriculture and Forestry

Total project cost: US\$67.6 million

Amount of original IFAD loan

(performance-based allocation system

[PBAS]):

US\$28.8 million

Terms of original IFAD financing: Ordinary: Maturity period of 18 years, including a five-

year grace period

Amount of additional IFAD Ioan

(PBAS):

US\$27.2 million

Terms of additional IFAD financing: Ordinary: 18 years, including a grace period of five

years, subject to interest at a rate equal to the IFAD reference interest rate including a variable spread

Original contribution of borrower: US\$8.2 million

Additional contribution of borrower: US\$2.2 million

Contribution of beneficiaries: US\$1.1 million

Amount of additional IFAD climate

finance:

US\$9.9 million

Cooperating institution: IFAD

I. Background and project description

A. Background

- 1. The IFAD Executive Board approved the Smallholder Agriculture Development and Commercialization Project in Cuanza Sul and Huila Provinces (SADCP-C&H-SAMAP) in April 2017 with a budget of US\$38.1 million (US\$28.8 million from IFAD, US\$8.2 million from the Government, and US\$1.1 million from beneficiaries). SADCP-C&H-SAMAP became effective on 9 August 2017 and reached completion on 30 September 2024. By 30 June 2024, US\$26.59 million (92.2 per cent) of the IFAD loan had been disbursed. The Rural Poor Stimulus Facility grant of US\$1.36 million was fully disbursed and closed in December 2022. The Government requested a six-month extension to 31 March 2025 for completion and 30 September 2025 for financial closure to prepare for the additional financing (AF) and expand coverage to current Smallholder Resilience Enhancement Project (SREP) regions. The project completion and closure dates for SADCP-C&H-SAMAP will be extended by four years to 31 March 2029 and 30 September 2029, respectively.
- 2. SADCP-C&H-SAMAP covers Cuanza Sul and Huila Provinces. Responsibility at the national level rests with the Director-General, Institute for Agricultural Development, Ministry of Agriculture and Forestry. The AF is sourced from cancelled funds from SREP.

B. Original project description

3. The project aims to increase smallholder agricultural productivity, production, resilience and marketing for selected crops. It has two components: (i) **capacity-building and institutional development** to enhance farmers' skills and create a supportive policy environment; and (ii) **support for increased production and commercialization** to improve farmers' capital and market access through investment subprojects. The proposed project development objective indicators are: (i) average yields of selected crops (cassava, maize, beans, Irish potatoes and key horticultural crops); (ii) the proportion of production marketed by smallholder farmers; and (iii) the number of direct beneficiaries, including women, youth and those receiving nutrition sensitization support.

II. Rationale for additional financing

A. Rationale

4. The rationale for the AF is that SADCP-C&H-SAMAP, a key IFAD agriculture project in the Republic of Angola, has successfully improved smallholder production and strengthened cooperatives for market-oriented activities. The early closure of SREP activities in neighbouring provinces has increased demand for SADCP-C&H-SAMAP's support, particularly for farmer field schools and cooperative market engagement. The AF will help deliver SADCP-C&H-SAMAP's exit strategy and prepare for future agricultural investments, supporting the development of market- and commercialoriented agricultural micro, small and medium-sized enterprises (agri-MSMEs). SADCP-C&H-SAMAP activities will be scaled up to new areas and beneficiaries, ensuring long-term sustainability of ongoing SADCP-C&H-SAMAP and SREP activities, especially for graduating farmer field schools, production infrastructure investments and cooperatives with business plans. The AF will also expand SADCP-C&H-SAMAP's outreach, particularly in southern SREP provinces that are transitioning from emergency recovery to resilient food security. Finally, the AF will create a pipeline of bankable agribusiness investments, laying the foundation for a second phase of SADCP-C&H-SAMAP to develop targeted agri-finance mechanisms and encourage private investment in agriculture.

Special aspects relating to IFAD's corporate mainstreaming priorities

- 5. In line with IFAD's mainstreaming commitments, the project has been validated as:
 - ☑ Including climate finance
 - ☑ Including adaptive capacity
- 6. **Gender and youth.** Women's participation in farmer field schools (FFSs) exceeds 50 per cent, with 32,442 households engaged in leadership roles. Machinery has reduced women's workload, and increased knowledge on nutrition, agriculture and climate-resilient seeds has improved their resilience. Women also have access to small production loans. The project ensures women's participation through central meeting venues, convenient times, literacy classes and childcare facilities. Monitoring reveals that women are represented in 563 producers' organizations (POs) supported by the project and that 26,325 women have been trained. Planned women's empowerment initiatives like the Gender Action Learning System have not been implemented due to the lack of a gender expert. The AF plans to provide leadership and entrepreneurship training for women in cooperatives. Youth participation is notable in cooperatives and FFSs, especially in Huila Province.
- 7. **Nutrition.** SADCP-C&H-SAMAP's interventions improved the knowledge, attitudes and practices of 10,960 households in 2023 and supported 49,136 households, reducing the incidence of school dropout and sickness among children. The training of 76 extension workers led to field visits and cooking demonstrations. Assessments revealed low protein intake and hygiene awareness. Training sessions focused on food group classification, malnutrition prevention and local food conservation. SADCP-C&H-SAMAP plans to continue these efforts and advance nutrition education.
- 8. **Climate change.** Angola ranks 160th on the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index, indicating high vulnerability to climate change. Projections show significant temperature increases and decreased rainfall, especially in the south, leading to reduced productivity. The SADCP-C&H-SAMAP additional financing will integrate climate-smart agriculture practices, develop efficient water management systems, and support small-scale irrigation and water-harvesting infrastructure. Extensive training on climate change adaptation and environmental management will be provided, supporting biodiversity conservation and enhancing local capacity.

B. Description of geographical area and target groups

9. SADCP-C&H-SAMAP has successfully reached 65,080 households, surpassing its target, with beneficiaries from cooperatives and FFSs in Cuanza Sul and Huila Provinces. The project uses a self-targeting mechanism and participatory monitoring, collecting sex- and age-disaggregated data. The AF will expand coverage to the SREP areas in the north (Zaire, Uige, Cuanza Norte and Bengo) and south (Benguela, Cunene and Namibe), which have distinct agro-ecosystems and socioeconomic conditions. The north has favourable conditions for agriculture, while the south faces arid conditions and high climate risks. Improvements in northern production and southern livelihood diversification will benefit both regions, addressing food and nutrition insecurity, low productivity and climate vulnerability.

C. Components, outcomes and activities

- 10. All SADCP-C&H-SAMAP components and activities, except for a revised subcomponent 2.2, will be replicated in the SREP areas and advanced in the current SADCP-C&H-SAMAP areas, with some adjustments to accommodate the specific needs of the new target areas and groups currently under SREP.
- 11. The AF will allow for the consolidation of the ongoing activities, FFS completion, institutional capacity-building of cooperatives, enhancement of the business plan

development capacities and the development of a viable pipeline for agribusiness investment.

- 12. **Component 1: Capacity-building and institutional development.** This component aims to strengthen smallholder farmers' technical, organizational and managerial skills and create a supportive policy environment. Initially targeting 2 provinces and 10 municipalities, SADCP-C&H-SAMAP will now expand to 7 provinces (36 municipalities) under the AF, covering diverse agroecological regions. The AF will enhance productivity and market linkages in the north and focus on resilience and sustainable agriculture in the south. It will also expand the number of beneficiaries to include those in SREP FFSs. SADCP-C&H-SAMAP phase 2 will build on these efforts, emphasizing commercialization and private sector engagement. Technical staff will be reallocated to support the expanded coverage, with a robust team of experts and facilitators. In summary, the AF will focus on supporting the following replicating and advancing activities:
 - (a) Support the implementation of additional 1,391 FFS from SREP;
 - (b) Support short-term training and refresher courses for FFS implementation staff;
 - (c) Support the collection of climate information data analysis and access to climate information services for smallholder farmers, which will allow them to optimize water use in irrigation, soil conservation and erosion prevention practices as well as adapting decisions on planting dates, crops and varieties;
 - (d) Support the preparation of environmental and natural resources management plans;
 - (e) Pilot test of multipurpose water harvesting in the south (advancing);
 - (f) Support for the National Directorate of Studies, Planning and Statistics (GEPE) to carry out surveys on crop cutting/post-harvest surveys;
 - (g) Support the development of a seed system (coffee and food crops) that includes the emergence of a network of local seed multipliers (advancing); and
 - (h) Support sustainable land management with interventions to address land degradation by rehabilitating rangelands and pastures.
- 13. Component 2: Support for increased production and commercialization. This component aims to strengthen smallholder capital and market linkages by supporting investment subprojects for farmers' organizations (FOs) to improve agricultural production and productivity. The AF will build on existing support from SADCP-C&H-SAMAP and SREP, focusing on capacity-building for communities to manage technical investments and resources sustainably. Instead of matching grants, the AF will support establishing revolving funds, which have proved effective in providing interest-bearing loans to cooperatives and FOs, facilitating ongoing financial support through loan repayments.
- 14. **Component 3: Project management, monitoring and evaluation.** This component ensures timely and efficient project coordination, management, monitoring and evaluation (M&E), and knowledge management. It includes two subcomponents: project management and project monitoring and evaluation. The project will build on SADCP-C&H-SAMAP and integrate seven additional provincial project implementation units from SREP, handling planning, budgeting and fiduciary matters, coordination, M&E, learning, knowledge-sharing, environmental and social safeguards, audits and reporting. Responsibilities will be detailed in the project implementation manual and financing agreement. The SADCP-C&H-SAMAP additional financing will use the SREP structure in seven provinces, aiming to reach

49,895 households (about 249,290 people), including those benefiting from FFS, investments, irrigation, support for minority groups and post-harvest equipment.

D. Costs, benefits and financing Project costs

- 15. Table 1 provides a summary of the total costs by financier (original and additional financing).
- 16. Project components 1 and 2 are partially counted as climate finance. As per the multilateral development banks' methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this project is estimated as US\$9,900,000.
- 17. The full amount of the IFAD climate finance is allocated to this additional financing proposal.

Table 1
Original and additional financing summary
(Thousands of United States dollars)

	Original financing*	Additional financing	Total
IFAD loan	28 848	27 200	56 048
Beneficiaries	1 100	-	1 100
Borrower	8 237	2 216	10 453
Total	38 185	29 416	67 601

^{*} See tables 1 and 2 in document EB 2017/120/R.9/Rev.1 for detailed breakdown.

18. There will be no change in the components or expenditure categories of the original financing. Additional financing costs by component and financier are provided in table 2.

Table 2 Additional financing: project costs by component, subcomponent and financier (Millions of United States dollars)

	IFAD addit financir		Borrov	wer	Total
Component/subcomponent	Amount	%	Amount	%	Amount
A. Capacity-building and institutional development					
Strengthening capacity of smallholder farmers and farmers' organizations through farmer field schools	10.5	97.6	0.3	2.4	10.7
2. Institutional strengthening of local, provincial and national units of the ministry of agriculture	2.2	100.0	0.0	-	2.2
3. Strengthening capacity and global knowledge to address emerging research issues	0.5	100.0	-	-	0.5
Subtotal	13.1	98.1	0.3	1.9	13.4
B. Support for increased production and commercialization					
1. Provision of technical support	0.7	100.0	-	-	0.7
2. Provision of investment support	7.9	93.6	0.5	6.4	8.4
Subtotal	8.6	94.0	0.5	6.0	9.1
C. Project management					
Project management	4.2	75.0	1.4	25.0	5.6
M&E	1.3	100.0	0.0	-	1.3
Subtotal	5.5	79.5	1.4	20.5	6.9
Total	27.2	92.5	2.2	7.5	29.4

19. The expenditure categories are summarized in table 3. It is important to note that most of the additional financing will go towards technical assistance and training (38 per cent).

Table 3

Additional financing: project costs by expenditure category and financier (Millions of United States dollars)

	IFAD ad finan		Borro	ower	Total
Works Equipment, material, goods and services /ehicles iquipment btotal Consultancies individual consultancy - local individual consultancy - local irirm - NGO consultancy - local irirm - NGO consultancy - foreign btotal Training and workshops incell training and workshops international training btotal Grants and subsidies Credit Unallocated tal investment costs Current costs Salaries and allowances Operating costs /ehicle - operations and maintenance (O&M)	Amount	%	Cash	%	Amount
Investment costs					
A. Works	4.1	91.8	0.4	8.2	4.5
B. Equipment, material, goods and services					
Vehicles	-	-	-	-	-
Equipment	4.4	91.0	0.4	9.0	4.8
Subtotal	4.4	91.0	0.4	9.0	4.8
C. Consultancies					
Individual consultancy - local	0.2	100.0	-	-	0.2
Individual consultancy - foreign	0.2	100.0	-	-	0.2
Firm - NGO consultancy - local	1.3	100.0	-	-	1.3
Firm - NGO consultancy - foreign	1.7	100.0	-	-	1.7
Subtotal	3.5	100.0	-	-	3.5
D. Training and workshops					
Local training and workshops	5.7	100.0	0.0	-	5.7
International training	1.7	100.0	-	-	1.7
Subtotal	7.4	100.0	0.0	-	7.4
E. Grants and subsidies	1.5	100.0	-	-	1.5
F. Credit	-	-	-	-	-
G. Unallocated	0.0	100.0	-	-	0.0
Total investment costs	20.9	96.3	0.8	3.7	21.7
Recurrent costs					
A. Salaries and allowances	5.8	82.5	1.2	17.5	7.0
B. Operating costs					
Vehicle – operations and maintenance (O&M)	0.4	86.0	0.1	14.0	0.4
Office equipment O&M	0.1	51.5	0.1	48.5	0.3
Building O&M	-	-	-	-	-
Other operating costs	-	=	-	-	-
Subtotal	0.5	73.1	0.2	26.9	0.7
Total recurrent costs	6.3	81.6	1.4	18.4	7.7
Total	27.2	92.5	2.2	7.5	29.4

20. The overall recurrent costs for the additional financing are estimated at 26 per cent of the total project cost. The recurrent costs under the IFAD additional financing stand at US\$6.285 million, representing 23 per cent of the AF, which is above IFAD's 15 per cent threshold, but around the same level as the recurrent costs approved in the original financing (22 per cent). The high level of recurrent costs is attributable to the high cost of living (with implications for salaries, allowances and O&M costs); the weight of the extension works among project activities (with implications in terms of the number of front-line extensionists hired and their salaries); and the decentralized project structure (with implications for the number of staff hired), none of which can be avoided. The recurrent costs will be closely monitored during implementation.

Financing and cofinancing strategy and plan

21. The US\$27.2 million additional financing for SADCP-C&H-SAMAP will be a reallocation of part of the approximately US\$33 million in funds that has been cancelled from SREP due to chronic performance-related issues. The remaining

cancelled funds from SREP will be reallocated to a new design planned for approval in 2025.

Disbursement

- 22. The project will open a separate designated bank account in United States dollars for the additional financing at a commercial bank acceptable to IFAD. In addition, there will be an operating account in local currency (kwanza) to receive funds from the designated account. Provinces will have sub-accounts to receive funds from the operating account Report-based disbursement will be the mechanism used by the project.
- 23. IFAD financing will not be used for payment of taxes and duties.

Summary of benefits and economic analysis

- 24. The unified economic and financial analysis (EFA) has been built by updating the EFA carried out at design (original financing), and considering the revised costs and targets introduced with the additional financing. The revised project will improve the livelihoods and nutrition status of 114,938 households overall (of which 60,000 were the original targets for SADCP-C&H-SAMAP), create employment at FOs or POs and boost the development of agricultural value chains.
- 25. In terms of the economic analysis, the EFA shows that the AF will improve the overall efficiency and economic viability of the project. At design the internal rate of return (IRR) was estimated at 18 per cent, with a net present value of US\$28.3 million, whereas with the AF, the IRR increases to 23.7 per cent with a net present value of US\$54.5 million. This clearly corroborates the argument that the AF will build on and strengthen the results achieved by SADCP-C&H-SAMAP. The additional benefits of the AF are described in the next section.

Exit strategy and sustainability

26. The project exit strategy and sustainability of the interventions rely on the following specific pillars: (i) the adoption by smallholders of improved practices leading to sustainable increases in productivity; (ii) the strengthening of agriculture cooperatives and their transformation into market-ready commercial businesses; (iii) the creation of a national capacity for agricultural extension and support based on farmer field school approaches.

III. Risk management

A. Risks and mitigation measures

- 27. Key risk areas include country context, political commitment, governance, macroeconomic factors, sector strategies and policies, environmental and climate context, project scope and technical soundness. Moderate to low risks are identified in institutional capacity for implementation and sustainability, and M&E arrangements. Financial management, organization and staffing, budgeting, fund flow/disbursement arrangements and internal controls also carry substantial risks.
- 28. The top risks related to the additional financing that could affect implementation and the achievement and sustainability of development outcomes include:
 - (a) **Macroeconomic factors**. High inflation, currency depreciation and substantial foreign-currency denominated government debt pose significant risks to the project's financial stability and overall economic environment.
 - (b) **Governance and coordination**. Weak coordination among stakeholders and potential inefficiencies in grievance redress mechanisms could lead to duplication and inconsistency in project implementation.
 - (c) **Environmental and climate context**. Climate variability and hazards could impact the sustainability of agricultural practices and infrastructure investments.

- 29. To mitigate these risks, the following measures will be implemented by IFAD, the Government, the project management unit and other partners:
 - (a) **Enhanced stakeholder engagement.** Strengthening coordination and communication among stakeholders to ensure consistent and efficient project implementation.
 - (b) **Capacity-building.** Providing training and resources to improve institutional capacity for project management and sustainability.
 - (c) **Accessible grievance redress processes.** Establishing effective grievance redress mechanisms with whistle-blower protection measures to address concerns and improve transparency.
 - (d) **Climate-smart investments.** Integrating climate change effects into planning and design of irrigation investments and promoting sustainable agricultural practices to reduce vulnerability to climate variability.

B. Environment and social category

30. The environmental and social category for the AF is "moderate", which is consistent with the original financing. The environmental and social impacts are anticipated to be site-specific and manageable through appropriate mitigation measures. The main environmental risks include soil degradation, water pollution, and biodiversity loss due to increased agricultural activities. Social risks involve the impacts on culture, gender inequalities, and resource conflicts arising from heightened demand for land and water. Climate risks pertain to the vulnerability of the project areas to droughts, floods and climate variability. Capacity and knowledge gaps among local farmers and extension workers could hinder the adoption of climate-smart agricultural practices, impacting the project's overall effectiveness and sustainability. To comply with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) guidelines, the project developed an environmental and social management plan. A targeted adaptation assessment and stakeholder engagement plan will be developed by December 2024. A Free, Prior and Informed Consent plan and a grievance redress mechanism were developed at the AF design stage. Moreover, training on sustainable practices to ensure continuous monitoring and adaptive management will be provided during implementation.

C. Climate risk classification

31. The SADCP-C&H-SAMAP additional financing climate risk is classified as "substantial". The northern provinces are associated with rain-fed cereal regions that which are characterized by substantial annual fluctuations in rainfall, resulting in fluctuations in productivity. Droughts and floods have had a profound impact on the southern provinces. In both regions, producers employ conventional cropping techniques, with minimal consideration for soil or water conservation, soil nutrient replacement, plant variety selection, irrigation or other climate-adaptive technologies. A targeted adaptation assessment will be conducted to provide additional information regarding the adaptation measures planned by SADCP-C&H-SAMAP and the identified climate adaptation/mitigation measures will be incorporated into project activities.

IV. Implementation

A. Compliance with IFAD policies

32. There are no changes to the objectives or outcomes of the project. The project structure also remains unchanged. However, some adjustments to the logical framework will be required, as presented in the unified updated framework in appendix I.

33. Overall, the integration of SREP into SADCP-C&H-SAMAP aims to create a more comprehensive approach to agricultural development and resilience-building in Angola. The changes align the combined project with the harmonized goals of improving food security and nutrition, diversifying the economy, generating revenue, and improving the livelihoods and resilience of poorer households.

B. Organizational framework

Management and coordination

34. Implementation arrangements will be adapted to manage the expanded scope, including the addition of the technical support teams. Project management structures will also be revised to accommodate the larger scale of operations, including enhanced M&E systems to capture the impacts of the integrated project.

Financial management, procurement and governance

- 35. SADCP-C&H-SAMAP's original financial management arrangements will continue to be used for additional financing, but there will be additional administrative assistants due to the increased number of provinces. Since the country's financial management systems are weak, SADCP-C&H-SAMAP will not be using national systems.
- 36. IFAD-financed and -managed operations will be governed by the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations, as available on IFAD's website.

Procurement

- 37. Procurement of goods, works and services for the SADCP-C&H-SAMAP additional financing will be carried out in accordance with the Angolan Public Procurement Law and will comply with IFAD requirements to be specified in the financing agreement and the procurement arrangements. However, IFAD's procedures, standard bidding documents, and contract terms and conditions will be used under the international competitive bidding method and the procurement of consultancy services.
- 38. In case of contradictions between the national procurement regulations and the IFAD Project Procurement Guidelines, the IFAD Project Procurement Guidelines will prevail.

Governance

- 39. The project will retain the current SADCP-C&H-SAMAP procurement specialist and one of the procurement assistants to continue their functions in the project for the additional financing. The team will be strengthened by absorbing the SREP procurement officer into SADCP-C&H-SAMAP.
- 40. All procurement documentation issued to bidders will include and comply with the relevant safeguard provisions.

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

- 41. **Monitoring and evaluation.** The M&E system will keep tracking both physical and financial progress, along with advancements towards project goals, serving as a vital management tool. Inputs, outputs, processes and outcomes will be monitored following logical framework indicators, utilizing data collected by project staff, service providers/implementing partners and surveys (core outcome indicator surveys), and managed through the project management information system, staff reports and surveys. All data will be disaggregated by sex and age.
- 42. **Learning, knowledge management and strategic communication.** SADCP-C&H-SAMAP's knowledge management system captures, stores, shares and utilizes data on crop yields, market trends and farmer practices to inform decisions and record best practices. Digital platforms facilitate knowledge exchange among

farmers, researchers and extension workers. Strategic communication supports project objectives through stakeholder dialogue, awareness campaigns and diverse media, while also setting up feedback channels and advocating for policy support. With the additional financing, these elements will be refined and scaled up to enhance agricultural practices and project implementation.

D. Proposed amendments to the financing agreement

43. The financing agreement will be revised in terms of the amount that IFAD will contribute, as per cost table 2, in accordance with the category allocations outlined in table 3. Completion and closing dates will also be extended by 42 months. There will be no other changes to the financing agreement.

V. Legal instruments and authority

- 44. A financing agreement between the Republic of Angola and IFAD will constitute the legal instrument for extending the proposed additional financing to the borrower. The signed financing agreement will be amended following approval of the additional financing.
- 45. The Republic of Angola is empowered under its laws to receive financing from IFAD.
- 46. I am satisfied that the proposed additional financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

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

RESOLVED: that the Fund shall provide a loan on ordinary terms to the Republic of Angola in an amount of twenty seven million two hundred thousand United States dollars (US\$27,200,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Alvaro Lario President

Updated logical framework incorporating the additional financing

Project Goal To diversify the economy, generate revenue and improve livelihoods and food and nutrition security of poorer households Development Objective To increase smallholder agriculture productivity, production, resilience and marketing for selected crops in the Project areas.	Indicators					Means of Veri	fication		Assumptions
	Name	Baseline	Mid-Term	Original target	AF End Target	Source	Frequency	Responsibility	Assumptions
Outreach	1.b Estimated corresponding total nur			nbers		Progress	Annual	PMU	Primary target
Project Goal To diversify the economy, generate evenue and improve ivelihoods and food and nutrition security of poorer households Development Dijective To increase smallholder agriculture productivity, production, resilience and marketing for selected crops in the Project areas.	Household members - Number of	-	100,000	300,000	574,690	Reports			communities, women
	people								and young people are
	1.a Corresponding number of househo	olds reache	d	-		Progress	Annual	PMU	incentivized to activel
	Households - Households		20000	60000	114,938	Reports			participate in project
	1 Persons receiving services promote	d or suppor	ted by the p	roject		Progress	Annual	PMU	activities, where 50%
	Total number of persons receiving	-	20,000	60,000	114,938	Reports			of target are women,
	services - Number of people								50% men, 30% are
									young people, and 59 are PWD
roject Goal	Improved household asset ownership	index			Baseline, mid-	Baseline.	Service Provider	Policy, governance	
	Household asset ownership -	I	10	25	25		Midline and	Corvico i revidor	and macroeconomic
	Percentage (%)			20		of project	Endline		risks will not interfere
pject Goal diversify the conomy, generate venue and improve elihoods and food and trition security of orer households velopment vjective increase smallholder riculture productivity, oduction, resilience d marketing for lected crops in the	1 Groomage (70)					surveys			with program
•	Women reporting minimum dietary div	ersity	l	I.	1	Baseline	Baseline.	Service Provider	Implementation
utreach roject Goal o diversify the conomy, generate evenue and improve velihoods and food and utrition security of corer households evelopment bjective o increase smallholder griculture productivity, roduction, resilience nd marketing for elected crops in the roject areas.	,,,,,		survey,	Midline and					
	(%) women reporting improved quality					nutritional	Endline		
	of their diets - Percentage (%)					assessments			
bjective	Percentage of FFS beneficiaries receive	ing nutritio	n education	•	Reports of	Annual	PIU, PPIU, IDA,	Extreme climate	
	Beneficiaries - Number	-	20,000	60,000	114,938	implementing		service	change shocks,
						entities and		providers	Policy, governance
agriculture productivity,						IDA records			and macroeconomic
roduction, resilience	Average crop yields					Surveys of the	Annual	PIU IDA, service	risks will not interfere
	Maize (MT/ha) average - Number	0.5	1	2.1		FFS/FBS		provider	with program
	Beans (MT/ha) average - Number	0.3	0.55	0.9	0.9	participants			Implementation
Project areas.	Onion (MT/ha) average - Number	8	12	14					
roject Goal o diversify the conomy, generate evenue and improve velihoods and food and utrition security of corer households evelopment bjective o increase smallholder griculture productivity, roduction, resilience nd marketing for elected crops in the roject areas.	Irish potato (MT/ha) average - Number	9	10	12	12	subproject			
	Cassava (MT/ha) average - Number	7	9	13	13	beneficiaries			
	No. of HH report a>50% increase in res	silience sco	re			Specific	Annual	PIU	
	Households number			0	10000	technical and			
						project activity			
and marketing for elected crops in the Project areas.		0	0			reports			
	Proportion of targeted smallholder pro	duction ma				Surveys of the	Annual	PIU IDA, service	
	Marketed production - Percentage (%)	15	20	25	25	FFS/FBS		provider	
						participants			
						and			
						subproject beneficiaries			
	SF.2.1 Households satisfied with proje	ct-supporte	ed services			COI Surveys	Baseline,	IDA, service	-
	Households - Number	0	-	_	86.204		Midline and	provider	
				33,201		Endline	1		
	2.2.4. Supported rural producers' orga	nizations p	roviding nev	vices to their	COI Surveys		IDA, service	Conducive policy	
Outcome 1: Smallholder	members		-					provider	framework for FOs

Results Hierarchy	Indicators					Means of Verif	fication		Assumptions
Results merarchy	Name	Baseline	Mid-Term	Original target	AF End Target	Source	Frequency	Responsibility	•
farmers and government agricultural extension capacity, and policy				132	132		Baseline, Midline and Endline		and agricultural extension service
strengthened	1.2.9 Households with improved nutrit	ion Knowled	dge Attitudes	and Practices (COI Surveys	Baseline,	IDA, service	
	Households (number) - Households			30,000	57,469		Midline and Endline	provider	
	Appropriate smallholder agricultural p	olicies inclu	ided in natio	nal & sectoral de	velopment plans		Baseline,	PIU, IDA,	
	Policies included in Development Plans - Number	0	1	3	3	Development Plans/sector Strategy Reports/ Surveys of the FFS/FBS participants	Midline and Endline	service provider	
	Policy 3 Existing/new laws, regulations approval, ratification or amendment	s, policies o	r strategies	National Development	Baseline, Midline and	PIU, IDA, service provider			
	Number - Number	0	1 3 Plans/sector Strategy Reports/ Surveys of the FFS/FBS participants						
Output	1.1.4 Persons trained in production pra	actices and/	or technolog	ies	I	IDA records	Existence of		
Output 1.1 Smallholder farmers' technical,	Total persons trained in crop - Number of people	0	20,000	60,000	103,027			IDA, service provider	competent local implementing partners
organisational and	1.1.8 Households provided with target	ed support	•	IDA records	Annual	IDA, service	provide farmers with		
managerial competence improved	Total persons participating - Number of people	0	30,000	60,000	114,938		provider		technical and managerial capacity
Output	Percentage of FOs operational					Reporting	Annual	PIU, IDA	Policy and technical
Output 1.2 Supported smallholder farmers'	Farmer Organizations operational - Percentage (%)	0	30	60	60	service provider			conditions for farmers to cooperate exist
organisations and	2.1.3 Rural producers' organizations s					Reporting	Annual	PIU, IDA	
cooperatives (FOs) fully functional	Rural POs supported - Organizations	0		180		service provider			
Output	Number of MINAGRI/IDA/ICA staff train	ed in FFS a				Reporting	Annual	PIU, IDA	Conducive policy
Output 1.3 Enhanced capacity of MINAGRIF extension service staff on service delivery	Trained staff - Number	0	100	150	365	service provider			framework for agricultural extension service
Output	Number of registered entities (with me	mharchin d	ata disaggro	nated by gender)	I	Registrar	Annual	MINAGRI	Policy and technical
Output 1.4 Registration of farmers' associations and cooperatives (including Water User Associations)	Registered entities - Number	0		165	201	Trogistiai	Tunudi	MINACINI	conditions for farmers to cooperate exist

Results Hierarchy	Indicators					Means of Veri	Assumptions		
Results merarchy	Name	Baseline	Mid-Term	Original target	AF End Target	Source	Frequency	Responsibility	Assumptions
streamlined and									
supported									
Outcome	1.2.2 Households reporting adoption of					COI Surveys	Baseline,	IDA, service	Government is willing
Outcome 2:	Households - Number	0	24,000	48,000	91,950		Midline and	provider	to engage
Government capacity to	OF COULTS at all a server of the set to see				-141	001.0	Endline	IDA	stakeholders in
support climate resilient smallholder agricultural	SF.2.2 Households reporting they can	influence a	ecision-mak	ing of local autho	rities and	COI Surveys	Baseline, Midline and	IDA, service	smallholder agricultural production
production and	project-supported service providers Households - Number	0	1	1	86,204		Endline and	provider	and commercialization
commercialization	3.2.2 Number of persons reporting add			ly custoinable and	· · · · · · · · · · · · · · · · · · ·	COI Surveys	Baseline,	IDA, service	and commercialization
enhanced	resilient technologies and practiced	phion of en	vironinentan	iy Sustailiable alic	Cilliate	COI Surveys	Midline and	provider	
5	Number of people	0	1		100.000		Endline		
Output	Number of recommended technology		1	ns and target gro	,	IIA & IDA	Annual	IDA	Sufficient capacity of
Output 2.1 Institutional	technologies developed - Number	n n		5	40	IIA G IDA	Ailidai	IDA	IIA& IDA to prepare
capacity of national and	1.1.3 Rural producers accessing produ	·		hnological nackad		IDA Report	Annual	IDA	technology kits
provincial-level	Total rural producers - Number of	0	Annual	35,000		/Project	7 ti ili dai	ID/ (listing, inc
agricultural research	people		7 tillidai	00,000	02,000	Progress			
system strengthened	p sop.s					Reports			
	Number of adapted climate resilience to	echnologie	IDA Report	Annual	IDA				
	climate technologies applied - Number	0	Annual	20	13	/Project			
						Progress			
						Reports			<u> </u>
	3.1.2 Persons provided with climate in	formation s			T	IDA Report	Annual	IDA	
	Number of people	0	30,000	60,000	98,864	/Project			
						Progress		IDA samisa	
Outeau	2.2.2 Donal mandon and a manifestions a					Reports	Danalina		Full and and former and
	2.2.3 Rural producers' organizations e	ngaged in to	ormai partne	ersnips/agreemen	ts or contracts	COI Surveys	Baseline,	IDA, service	Enhanced farmers
	with public or private entities Number of POs	0	83	165	121		Midline and Endline	provider	and FOs capacity to produce for market
	Number of POS	٥	03	100	121		Litaline		produce for market
Output	Financially viable BPs and bankable ag	ari-investme	ents support	ed		IDA Report	Annual	PPIUs	Enhanced farmers
	SP approved - Number	0	50	150	186	/Project			capacity to utilize and
Strengthened business	от претотов томпости					Progress			manage collective
Output 3.1 Strengthened business capacity of farmers and value chain actors Output						Reports			resources
value chain actors	Water management groups' financial n	nanagemen	t plans supp	orted		IDA Report	Annual	PPIUs	
				0	100	/Project			
	Progress								
	Number of financial management plans			Reports					
Output	Revolving fund schemes for agricultur		ost-harvest	equipment, value	addition tools,	IDA Report	Annual	PPIUs	Organized farmers
Output 3.2 Community-	and multipurpose boreholes supported	d				/Project			groups exist
based financial						Progress			consisting main target
organizations						Reports			groups of Women and
established	l are a sum of SAMAP targets (in some	0 00000 7 = 1	bioxod ====	ltal and the earlie	ional financias to	racto (manimis		ulto from CDED :	Young people

Logic: Total targets are a sum of SAMAP targets (in some cases achieved results) and the additional financing targets (mainly achieved results from SREP interventions) as well as new targets resulting from restructured subcomponent 2.2.

Updated summary of the economic and financial analysis

Table A

	ncial cash flo	W				
FINANC		Farm models' net	incremental benefits -NIB	(in AOA)		
FINANCIAL ANALYSIS		Model 1: rain- fed, FFS	Model 2: rain-fed, FFS and investment support	Model 3: horticulture, FFS	Model 4: horticulture, FFS and investment support	Model 5: irrigation, FFS
S	PY1	-60,780	-71,228	-66,149	-53,032	-342,897
	PY2	-11,431	-15,502	39,362	-13,042	11,511
	PY3	35,919	38,225	73,713	24,949	240,168
	PY4	85,268	93,951	110,065	64,939	470,826
	PY5	84,268	92,951	109,065	63,939	469,826
	PY6	85,268	81,959	110,065	64,939	470,826
	PY7	84,268	86,955	109,065	64,939	469,826
	PY8	85,268	93,951	110,065	64,939	470,826
	PY9	84,268	92,951	109,065	63,939	469,826
	PY10	85,268	93,951	110,065	64,939	470,826
B/C ratio	•	1.12	1.97	1.98	1.49	1.18
NPV @ 20° rate (AOA)	% discount	139,191	141,416	243,588	95,775	842,495
FIRR		60%	55%	99%	52%	66%
Return to fa (AOA)	amily labour	3,198	2,352	6,059	4,970	4,088

Financial cash flow models

Table B Project/programme costs and logframe targets

Targets used in the wsheet 'Pha			d to											
Number of beneficiaries		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
		PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9	PY10	PY11	PY12	TOTAL
Rainfed FFS	Num ber	-	-	1 910	4 453	1875	4 740	9 133	7 175	9 973	6 231	6 231	_	51 722
Rainfed Investment	Num ber	-		637	1 484	625	1 580	3 044	2 392	3 324	2 077	2 077	_	17 241
Horticulture investment	Num ber	-	,	85	198	83	211	406	319	443	277	277	_	2 299
Horticulture FFS	Num ber	-		340	792	333	843	1 624	1 276	1 773	1 108	1 108	_	9 195
Irrigation	Num ber	-	-	1 274	2 969	1250	3 160	6 089	4 783	6 649	4 154	4 154	_	34 481
Total		-		4 245	9 895	4166	10534	20 296	15 944	22 162	13 848	13 848	_	114 938
From the Logframe														
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8					end target
		2017	2018	2019	2020	2021	2022	2023	2024					Jul
Hhs		-	-	4 245	9 895	4166	10 534	20 296	15 944					114 938

Table C Main assumptions and shadow prices

Main Assumptions and Shadow prices	
Item	Conversion factor
Fertilizers	0.5
Chemicals	0.7
Seeds	1
Maize (improved seed)	0.9
Bean and soybean seeds	0.8
Packaging	0.9
Labour	0.85
Animal Power	1
Price crops (except Maize and Bean)	1
Other (farm replacement)	1

Table D Beneficiary adoption rates and phasing

Number of Conference																								
Marchest	mber of	beneficiaries																					vear 19	vear 20
Manuschi		Earm model 1	Pain fod EEC		PY1	PY2													year 15			year 18	year 19	
Fram model 4 Meschaller 15 18 18 18 18 18 18 18					- 1	100																		
Paramode Impace					_																			
Part		Farm model 4	Horticulture INV		-	- 2	340	792	333	843	1 624	1 276	1 773	1 108	1 108	0	0	0) () ()
Commonical Description marked Part		Farm model 5	Irrigation		-	-	1 274	2 969								0	0	0		0		0)
Part March		Total			0	0	4 245	9 895	4 166	10 534	20 296	15 944	22 162	13 848	13 848	0	0	0		0) (0)
Part March																								
Frame model September Param model September																								
From model Series methods Series																							229 936	229 9
Frame model Processing Process																							275 864	275 8
Farm model																							103 670	103 6
sate Met Incremental Coronic Secoffs Currency Flam model Courrency Cour																							83 194	83 1
Firm model 1		Farm model 5	Irrigation	AOA	29 810	***************************************	***************************************	***************************************	nnnnn	***************************************	***************************************	876 374	***************************************	***************************************	***************************************	876 374	876 374	876 374	876 374	876 374	876 374	876 374	876 374	876 3
Farm model 1																								
Firm model 1																								
Farm model 1	tal Net Ir	ncremental Econom	ic Renefits	Curre	encv																			
Farm model 1				000 L	JS 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Farm model		Farm model 1		000 L	JSŚ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Farm model		Farm model 1		000 L	JS\$		106	240	370	504	502	504	502	504	502	504	504	504	504	504	504	504	504	5
Farm model 1				000 L	JS\$				560	862	1 175	1 170	1 175	1 170	1 175	1 170	1 175	1 175	1 175	1 175	1 175	1 175	1 175	11
Farm model		Farm model 1		000 L	JS\$				104	236	363	495	493	495		495	493	495	495	495	495	495	495	4
Farm model	- 1	Farm model 1		000 L	JS\$						596												1 251	1.2
Farm model		Farm model 1		000 L	JS\$						506	1 148	1 769	2 411	2 401	2 411	2 401	2 411	2 401	2 411	2 411	2 411	2 411	2 4
Test form model 2 000US 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0												397											1 894	18
Farm model 2				000 L																			2 633	2 6
Farm model 2						-																	10 364	10 3
Farm model 2																							0	
Farm model 2						0																	0	
Farm model 2							52																202	2
Farm model 2								120															470	4
Farm model 2									51														198	1
Farm model 2										128													500	5
Farm model 2											125												362	3
Farm model 3								_				123											318	2
Farm model 3				000 0				222	440	703	1 100	1 500											2 278	2 2
Farm model 3				000.1																			22/8	22
Farm model 3 000 USS 0 0 3 7 10 10 10 10 10 10 10 10 10 10 10 10 10																							0	
Farm model 3						- 0			7														10	
Farm model 3							- 0	-	8														24	
Farm model 3																							10	
Farm model 3																							25	
Farm model 3																							48	
Total Form model 4				000 L	JS\$							0	13	25	38	38	38	38	38	38	38	38	38	
Farm model 4		Farm model 3		000 L	JS\$								0	18	35	53	52	53	52	53	52	53	53	
Farm model 4 000 US\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Total Farm model 3				0	0	4	15	29	49	77	114	160	189	207	207	207	207	207	207	208	208	20
Farm model 4 000 USS		Farm model 4		000 L	JS 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Farm model 4 000 US\$ 28 0 7 41 76 75 76 75 76 75 76 76 76 76 76 76 76 76 76 76 76 76 76	- 1	Farm model 4		000 L	JS\$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Farm model 4 000 USS	1	Farm model 4		000 L	JS\$		(12)	3	17	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
Farm model 4 000 US\$								(28)															76	
Farm model 4 000 USS	- 1	Farm model 4							(12)	3	17		31			32	31	32		32		32	32	
Farm model 4 000 US\$										(30)													80	
Farm model 4 000 USS 0 0 1(12) (25) 13 47 76 153 225 455 585 663 662 664 668 668 665 665 665 667 662 669 668 668 665 665 665 667 662 669 668 668 668 668 668 668 668 668 668											(57)												155	1
Total Farm model 5								-				(45)											122	1
Farm model 5 000 US 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				000 L		-	****	far:															169	1
Farm model 5 000 US\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				000.																			667	66
Farm model 5 000 USS 44 596 997 1 281 280 1281 1280 1281 1280 1281 1281																							0	
Farm model 5 000 US5 102 1389 2185 2987 2981 2987 2981 2987 2987 2987 2987 2987 2987 2987 2987						- 0																	1 281	12
Farm model 5 000 USS 1 28 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1256 128 1258 1258 1258 1258 1258 1258 1258						-	44		1 380	2 185			2 987										2 987	29
Farm model 5 000 US\$ 1 109 1479 2256 3180 3176 3180 3180 3176 3180 3176 3180 3180 3176 3180 3176 3180 3176 3180 3176 3180 3176 3180 3180 3180 3176 3180 3180 3180 3180 3180 3180 3180 3180								102															1 258	12
Farm model 5 000 USS 0									43														3 180	31
Farm model 5 000 US\$										100													6 126	61
Farm model 5 00 USS 0 0 44 698 2369 4159 6874 10862 member 1 1245 2458 6690 6682 6690 6690 6690 6690 6690 6690 6690 669											200												4 813	48
Total Fram model 5 0 0 4 698 2 369 4 129 6 874 10 862 memer 121 657 26 528 6 232 26 318 26 322 26 320 26 329 26 320 26 32												-04											6 690	66
				2300		0	44	698	2 369	4 159	6 874	10 862											26 334	26 33
2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027				000 L																			39 851	39 8
PY1 PY2 PY3 PY4 PY5 PY6 PY7 PY8 PY9 PY10 PY11			adoption rate																				19 926	199
PY1 PY2 PY3 PY4 PY5 PY6 PY7 PY8 PY9 PY10 PY11																								
otal economic costs 000 US: 0 796 5 074 5 073 8 510 4 242 5 366 13 850 14 304 9 567 3 159 1 751																								
noremental net benefits 0.00 U.S. 0 (796) (4.979) (4.979) (4.980) (6.575) (801) 3.03 (5.189) (1.920) 6.830 (5.42) 18.148 18.150 18.158 18.152 18.167 18.164 18.175 (operational costs of strengthened government offices (IOA, EDAs, agricultural research) particularly at province and municipality levels.											PY7													
/ operational costs of strengthened government offices (IDA, EDAs, agricultural research) particularly at province and municipality levels. EIRR 23.6%	tal econo	omic costs		000 L	JS: 0	796	5 074	5 073	8 510	4 242	5 366	13 850	14 304	9 567	3 159	1 751	1 751	1 751	1 751	1 751	1 751	1 751	1 751	17
/ operational costs of strengthened government offices (IDA, EDAs, agricultural research) particularly at province and municipality levels.																				1				
EIRR 23.6%											303	(5 189)	(1920)	6 830	15 442	18 148	18 150	18 158	18 152	18 167	18 164	18 175	18 175	18 1
	operation	nai costs of strengther	nea governement offices (IDA, EDAs, agriculturi	at research) particula	riy at prov	nnce and	municipali	ty levels.															
						1	-													_				-
						1		-					-							_				
ENRY 2 538 994					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,																			

Table E Economic cash flow

6

Project F	conomic								
cash flow									
ECONOMIC ANALYSIS		Net Aggregate	Increm ental	Cash Flow					
		Model 1: rain-fed, FFS	Model 2: rain- fed, FFS and investment support	Model 3: horticultu re, FFS	Model 4: horticultur e, FFS and investmen t support	Model 5: irrigation, FFS	Total Economi c NIB a/ (USD '000)	Econo mic Costs (USD '000)	(US\$D' 000)
	PY1	-	-	-	-	-	-	0	-
	PY2	-	-	-	-	-	-	796	(796)
	PY3	106	52	0	(12)	44	95	5 074	(4 979)
	PY4	487	222	4	(25)	698	693	5 073	(4 380)
	PY5	1 033	440	15	13	2 369	1 935	8 510	(6 575)
	PY6	1 865	782	29	47	4 159	3 441	4 242	(801)
	PY7	3 142	1 198	49	76	6 874	5 669	5 366	303
	PY8	4 633	1 598	77	153	10 862	8 661	13 850	(5 189)
	PY9	6 644	2 109	114	252	15 650	12 385	14 304	(1 920)
	PY10	8 469	2 253	160	455	21 457	16 397	9 567	6 830
	PY11	9 648	2 251	189	585	24 528	18 601	3 159	15 442
	PY12	10 345	2 260	207	663	26 322	19 898	1 751	18 148
	PY13	10 340	2 274	207	662	26 318	19 901	1 751	18 150
	PY14	10 350	2 270	207	664	26 325	19 909	1 751	18 158
	PY15	10 342	2 275	207	663	26 320	19 903	1 751	18 152
	PY16	10 356	2 278	207	665	26 329	19 918	1 751	18 167
	PY17	10 353	2 278	207	665	26 327	19 915	1 751	18 164
	PY18 PY19	10 364	2 278	208	667	26 334	19 926	1 751	18 175
		10 364	2 278	208	667	26 334	19 926	1 751	18 175
	PY20	10 364	2 278	208	667	26 334	19 926	1 751	18 175
		ENPV (US\$ '000)	-	58 994			a/ with an rate of:	auoption	50%
		EIRR		23.6%					

Table F
Sensitivity analysis

Table 9. Sensitivity analysis summary

Δ%		Link with the risk matrix		NPV (USD '000)
		Base case		58,994
	-10%	Combination of risks affecting output prices, yields and adoption rates, mainly linked with the country's environmental and climate context (e.g., climate variability and hazards could impact the sustainability of agricultural practices and infrastructure investments).		47,861
D	-20%			36,727
Decrease in benefits	-30%			25,594
	-50%			3,327
	10%		21.0%	53,760
Increase in	20%	Increase of input prices or construction material, mainly linked to macroeconomic factors (e.g., high inflation, currency	18.8%	48,526
project costs	50%	depreciation, and substantial foreign-currency denominated government debt which pose significant risks to the project's financial stability and overall economic environment)		32,824
	1 year		18.5%	46,831
Delay of benefits		Risks affecting adoption rates and low implementation capacity, mainly linked with governance and coordination (e.g. weak coordination among stakeholders and potential inefficiencies in grievance redress mechanisms could lead to duplication and inconsistency in project implementation).		
	2 years		14.9%	35,356