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President's report

Proposed Ioan and grant to the Federal Democratic Republic of Ethiopia for the Participatory Small-scale Irrigation Development Programme - Phase II (PASIDP II)

Note to Executive Board representatives

Focal points:

Technical questions: Dispatch of documentation:

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Chief

William Skinner

Executive Board — 118th Session Rome, 21-22 September 2016

For: Approval

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Abbreviations and acronyms

ASAP Adaptation for Smallholder Agriculture Programme
ESIA environmental and social impact assessment
ESMF environmental and social management framework
ESMP environmental and social management plan

FPCMU federal programme coordination and management unit

IWUA irrigation water users' association

M&E monitoring and evaluation

NPSC national programme steering committee

PASIDP Participatory Small-scale Irrigation Development Programme

RAP resettlement action plan

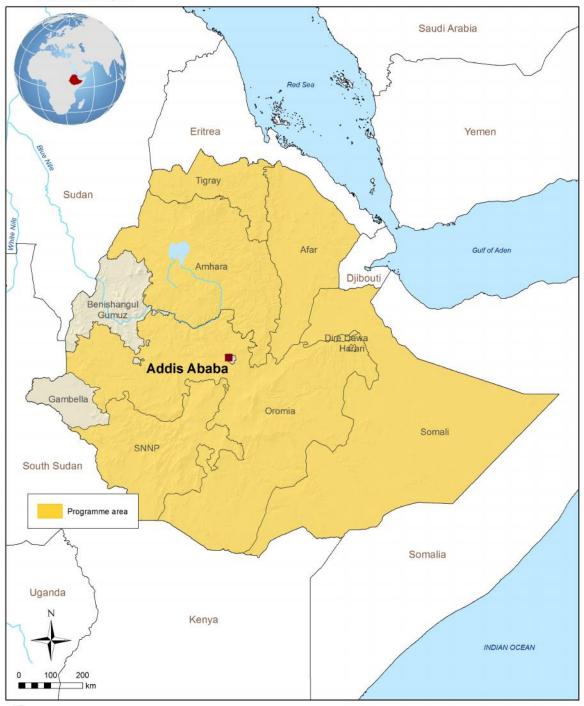
RPCMU regional programme coordination and management unit SECAP Social, Environmental and Climate Assessment Procedures

Map of the programme area

Federal Democratic Republic of Ethiopia

Participatory Small-scale Irrigation Development Programme - Phase II (PASIDP II)

President's report





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 | 26-07-2016

Federal Democratic Republic of Ethiopia

Participatory Small-scale Irrigation Development Programme Phase II (PASIDP II)

Financing summary

Initiating institution: IFAD

Borrower: Federal Democratic Republic of Ethiopia

Executing agency: Ministry of Agriculture and Natural Resources

Total programme cost: US\$145.3 million

Amount of IFAD loan: SDR 72,950,000 (equivalent to approximately

US\$102 million)

Terms of IFAD loan: 40 years, including a grace period of 10 years, with a

service charge of 0.75 per cent per annum

Amount of IFAD grant: SDR 1,080,000 (equivalent to approximately

US\$1.5 million)

Amount of Adaptation for Smallholder

Agriculture Programme (ASAP) Trust Fund grant:

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SDR 7,870,000 (equivalent to approximately

US\$11 million)

Contribution of borrower: US\$18.7 million

Contribution of beneficiaries: US\$12.1 million

Appraising institution: IFAD

Cooperating institution: Directly supervised by IFAD

Recommendation for approval

The Executive Board is invited to approve the recommendation for the proposed financing to the Federal Democratic of Ethiopia for the Participatory Small-scale Irrigation Development Programme Phase II (PASIDP II), as contained in paragraph 43.

Proposed Ioan and grant to the Federal Democratic Republic of Ethiopia for the Participatory Small-scale Irrigation Development Programme Phase II (PASIDP II)

I. Strategic context and rationale

A. Country and rural development, and poverty context

- 1. During the last decade, the Government of Ethiopia has achieved impressive results in economic growth and poverty reduction. Broad-based gross domestic product growth averaged 10.8 per cent each year between 2003/2004 and 2013/2014, and annual population growth was 3 per cent. This strong economic growth was driven by significant public investment and expansion of services and agriculture. The Government committed more than 60 per cent of its total expenditures to poverty-oriented sectors such as agriculture, education, health, water and road construction. Ending extreme poverty in Ethiopia requires sustaining current efforts and ensuring that economic growth is inclusive, especially in the rural areas. Many non-poor households in Ethiopia are just above the poverty line and vulnerable to falling into poverty in the case of a significant shock.
- 2. To sustain the country's strong economic growth, it is critical to enhance the productivity of agriculture, particularly farming systems such as small-scale irrigation with high potential for productivity increases. The Government's Growth and Transformation Plan II for 2015/2016-2019/2020 emphasizes the important role of agriculture as a driver of economic growth.
- 3. Ethiopia is endowed with a highly diverse agroecological environment spanning from temperate and moist tropical highlands to hot and arid lowlands, matched by a diverse sociocultural setting. As much as this heterogeneity has to offer in terms of natural resources, a common characteristic is environmental fragility. Major challenges include soil degradation, deforestation and loss of biodiversity. Climate change projections for Ethiopia indicate a significant increase in temperature and a likely increase in droughts, heavy rains and floods, particularly in the lowlands.

B. Rationale and alignment with government priorities and RB-COSOP

4. The Government of Ethiopia and IFAD are moving towards a programmatic approach with a longer-term vision for lending in the Ethiopian small-scale irrigation subsector. The first phase of the Participatory Small-scale Irrigation Development Programme (PASIDP), which was implemented between 2008 and 2015, contributed to reducing the country's vulnerability to adverse climate risks and drought as well as rural poverty and food insecurity. The country programme evaluation by the Independent Office of Evaluation of IFAD recommended financing a second phase of PASIDP since small-scale irrigation offers great potential for reducing the impact of climate change, enhancing economic growth and reducing poverty, which are all aspirations of the Government. This second phase will complete and hone the intervention model developed in the first phase, and will pilot the geographical

- expansion that will mainly be undertaken in the third phase, with an ultimate final vision of scaling up the programme nationwide.
- 5. PASIDP II is based on the assumption that poor farmers who are provided with access to a secure irrigation production base and access to markets and services will be able to produce and market greater volumes of crops in a profitable manner. The investment will include watersheds contiguous with the irrigation schemes, which exhibit varying levels of degradation, in order to stabilize them, improve their productive capacity and enhance their resilience. This will improve farmers' prosperity, food security and nutrition, enhancing their resilience against external shocks including those induced by adverse weather and climate change as witnessed in 2015 as a result of the El Niño weather phenomenon.

II. Programme description

A. Programme area and target group

- 6. The programme area of PASIDP II will cover four regions in Ethiopia: (i) Amhara; (ii) Oromia; (iii) Southern Nations, Nationalities and Peoples' Region; and (iv) Tigray. By the time of the midterm review, opportunities to expand the programme interventions into other regions on a pilot basis will be explored.
- 7. PASIDP II will benefit 108,750 households, of which: (i) 46,250 utilize small-scale irrigation schemes and some fields in the adjacent watersheds; (ii) 37,500 households live in and utilize the adjacent watersheds; and (iii) 10,000 benefited from irrigation support under PASIDP I and will benefit from the agronomic and market linkages support under PASIDP II. In addition, 15,000 employment opportunities will be created as a result of the growing labour requirements on farms and in marketing chains. Within the selected irrigation schemes and adjacent watersheds, PASIDP II will use a self-targeting approach together with mechanisms to promote the inclusion of women, youth and vulnerable groups.

B. Programme development objective

8. The programme development objective is to improve income and food security for rural households on a sustainable basis.

C. Components/outcomes

Component A: Investment in small-scale irrigation infrastructure

- 9. The expected outcome of component A is that farmers will have access to sustainable irrigation schemes; the programme aims to develop at least 15,000 hectares (ha) of small-scale irrigation schemes. Subcomponent A.1 will support (i) the selection of schemes; (ii) feasibility studies and detailed designs; (iii) the establishment and strengthening of irrigation water users' associations (IWUAs); and (iv) environmental and social impact studies and management plans. Subcomponent A.2 will support the development of the selected irrigation schemes, including multiple-user systems alongside irrigation.
 - Component B: Investment in capacity for sustainable agriculture
- 10. The expected outcome of component B is that farmers will have increased market-oriented skills and capacity for sustainable agriculture. Component B will support activities designed to ensure that beneficiaries operate in an environment that is conducive to rural commercial development. Subcomponent B.1 will support the strengthening of farmers' cooperatives, the development of agribusiness linkages and access to financial services. Subcomponent B.2 will: (i) support the improvement of crop husbandry practices, mainly through farmers' research groups and extension support; (ii) facilitate access to improved seeds; (iii) include gendersensitive activities; and (iv) promote nutrition-sensitive agriculture. Subcomponent B.3 will support improved watershed management and promote climate-smart agriculture.

- Component C: Programme management, monitoring and evaluation, and knowledge management
- 11. Component C will focus on (i) learning and knowledge management; and (ii) programme management, monitoring and evaluation.

III. Programme implementation

A. Approach

12. Programme implementation will be governed by four main principles: (i) alignment with government systems and procedures, and integration of programme implementation into decentralized government institutions; (ii) empowerment of beneficiaries to lead programme implementation through their grass-roots institutions; (iii) cooperation with private service providers and business entities; and (iv) partnerships and collaboration with other development partners and stakeholders in the sector.

B. Organizational framework

- 13. Programme governance. A national programme steering committee (NPSC) will provide overall policy and strategic guidance on programme focus, priorities and institutional strengthening. The NPSC will be chaired by the Minister of State for Agriculture and Natural Resources, and shall be composed of ministers of state from relevant sectors including the: Ministry of Water, Irrigation and Electricity; Ministry of Trade; Ministry of Environment, Forest and Climate Change; Ministry of Finance and Economic Cooperation; and Ministry of Industry. It will also include executives of the Federal Cooperative Agency, the Ethiopian Agricultural Research Institute and other institutions aligned with the programme's strategic focus.
- 14. Programme management. The Ministry of Agriculture and Natural Resources will be the lead implementing agency. The Minister of State for Natural Resources will be responsible for coordinating implementation with support from the Directorate of Small-scale Irrigation. A federal programme coordination and management unit (FPCMU) will ensure: (i) planning, monitoring and evaluation, (ii) stakeholder coordination at the federal level; and (iii) quality control of investments and cost-efficiency. The Ethiopian Agricultural Transformation Agency will provide technical and analytical support, and mobilize service providers for South-South Cooperation to build capacity in areas of innovation, including support to market access alliances, promotion of climate-smart innovations and agricultural finance.
- 15. Regional programme coordination and management units (RPCMUs) will coordinate investment planning, procurement and coordination of design consultants, works contractors and capacity-building service providers. At the district and programme-site levels, implementation will be fully integrated into local government structures. IWUAs will actively participate in the entire process of irrigation scheme development, from identification to the final hand-over.

C. Planning, monitoring and evaluation, and learning and knowledge management

- 16. The programme will be implemented on the basis of approved annual workplans and budgets, which will be prepared jointly by the FPCMU, RPCMUs, district governments and implementing partners. The FPCMU will consolidate the budget and present it to the NPSC for approval pending IFAD's prior review.
- 17. In line with the result-based management approach, progress towards programme outputs, outcomes, impact and sustainability will be regularly monitored. Baseline and impact surveys will be conducted at start-up, midterm and programme completion to assess the effectiveness of the investment. Feasibility studies for each irrigation scheme and watershed will provide baseline data to assess performance and results.

18. To improve performance and build local partners' capacity, the programme will promote participatory monitoring and evaluation (M&E) tools. The FPCMU will facilitate periodic structured discussions to share any issues encountered, solutions and results. Learning and sharing of knowledge will be based on the programme's M&E system, particularly on reviews and participatory assessments of lessons learned during implementation.

D. Financial management, procurement and governance

- 19. A senior finance manager will be appointed to ensure the use of a consistent, comprehensive chart of accounts and accounting software at the federal and regional levels. An accountant will be recruited at the FPMCU and in each region.
- 20. Funds flow and disbursement arrangements. A designated account will be opened at the National Bank of Ethiopia to receive the proceeds from the IFAD loan, the IFAD grant and the Adaptation for Smallholder Agriculture Programme (ASAP) grant. A programme operating account will be maintained by the FPCMU in accordance with government regulations and a separate account will be opened for the receipt of counterpart funding. The RPCMUs and implementing partners will also open dedicated bank accounts in their regions to facilitate the transparency of funds.
- 21. Programme audits. The Ministry of Agriculture and Natural Resources internal audit department will include the programme in its internal audit plans. The Office of the Federal Auditor General will either directly perform the external audit, request that the Audit Service Corporation perform it or hire an independent audit firm acceptable to the Fund. The internal and external audit recommendations will be reviewed by the NPSC.
- 22. Retroactive financing and start-up costs. As an exception to section 4.08(a) (ii) of the General Conditions for Agricultural Development Financing, specific eligible expenditures during the preparatory period from 1 July 2016 to 31 December 2016 up to the equivalent of US\$2 million pre-financed by the Government will be reimbursed from the IFAD loan after the financing agreement has entered into force and the conditions precedent to withdrawal have been met. In addition to this retroactive financing, withdrawals for start-up costs are encouraged for eligible expenditures incurred between the date of entry into force of the Financing Agreement and the satisfaction of the conditions precedent to withdrawal.
- 23. Procurement. The country's legislative and regulatory framework provides an adequate operational environment for procurement, including procurement for works. Lessons from the previous phase imply that a programme-specific procurement officer should be recruited to strengthen: records management; contract management; the integration of procurement into the budget formulation process; and reporting. Annual procurement plans will be subject to prior review by IFAD and will serve as tools for planning, implementing and monitoring all the programme's procurement activities.

E. Supervision

24. The programme will be directly supervised by IFAD. Features likely to require implementation support include: (i) planning and preparatory studies for irrigation schemes, including the early establishment of IWUAs and facilitating beneficiaries' active participation; (ii) implementation of an environmental and social management framework (ESMF); (iii) programme M&E; (iv) procurement; (v) access to finance, inputs and markets; and (vi) targeting.

IV. Programme costs, financing and benefits

A. Programme costs

25. Total programme costs over seven years, including contingencies, taxes and duties, are estimated at US\$145.3 million, as presented in the table below. Component A

represents 71.9 per cent of the costs, component B 20.5 per cent and component C 7.6 per cent.

Table 1 **Programme costs by component and financier**(Thousands of United States dollars)

	IFAD Id	an	IFAD g	rant	ASAP 1 Fund g		Benefici	aries	Borrower/ recipient		Total
Component	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount
A. Investment in small-scale irrigation Infrastructure	82 226	78.7	1 000	1.0	1 287	1.2	4 452	4.3	15 523	14.9	104 489
B. Investment in capacity for sustainable agriculture	11 571	38.8	_	-	8 516	28.6	7 621	25.6	2 108	7.1	29 815
C. Programme management, M&E and knowledge management	8 203	74.6	500	4.5	1 196	10.9	-	-	1 091	9.9	10 990
Total	102 000	70.2	1 500	1.0	11 000	7.6	12 072	8.3	18 722	12.9	145 294

B. Programme financing

26. Programme financing comprises an IFAD loan of US\$102 million on highly concessional terms and an IFAD grant of US\$1.5 million. An additional grant of US\$11 million (7.6 per cent of the total programme cost) from the ASAP Trust Fund will support the mainstreaming of climate-resilient interventions within the programme. The Government will provide the equivalent of US\$18.7 million, representing 12.9 per cent of total programme costs, to cover all duties and taxes. Public services at the national, regional and district levels will play a major role in programme implementation. The beneficiary contribution is estimated at US\$12.1 million, and will be provided in labour and materials.

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

	IFAD loan		IFAD grant		ASAP Trust Fund grant		Beneficiaries		Borrower/ recipient		Total
Expenditure category	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount
Training	4 142	33.4	-	-	6 475	52.1	-	-	1 801	14.5	12 417
Works	78 594	79.5	-	-	1 000	15.0	4 452	4.5	14 831	15.0	98 876
Consultancies	3 954	47.0	1 500	17.8	1 988	23.6	-	-	969	11.5	8 412
Goods, services and inputs	9 348	50.5	-	-	1 094	5.9	7 620	41.1	455	2.5	18 516
Salaries and allowances	3 572	84.1	-	-	443	10.4	-	-	233	5.5	4 247
Operating costs	2 390	84.6	-	-	-	-	-	-	434	15.4	2 825
Total	102 000	70.2	1 500	1.0	11 000	7.6	12 072	8.3	18 722	12.9	145 294

C. Summary benefit and economic analysis

- 27. The programme is expected to lead to: (i) a significant increase in farm productivity, market output and incomes for 46,250 farm households cultivating 18,400 ha of irrigated agriculture; (ii) higher yields in at least 60,000 ha of adjacent watersheds; (iii) additional jobs for 15,000 young and landless people who are not members of the households with irrigation schemes or watersheds; and (iv) improved market access and higher yields for 10,000 farming households that received support under PASIDP I.
- 28. With an economic rate of return of 28.8 per cent over 20 years and a net present value of US\$165 million per annum, the programme is an economically viable investment. The sensitivity analysis indicates a solid resilience to increases in

programme costs and reductions in output prices. The adoption rate and time lags of benefits are the most sensitive factors.

D. Sustainability

- 29. The participatory process of irrigation scheme establishment creates ownership and the necessary foundations and commitments for sustainability after programme completion. Programme implementation will be fully embedded in the Government's institutional framework at all levels, which will continue after programme implementation.
- 30. Mutually beneficial market linkages will ensure the sustainability of beneficiaries' incomes. The financial analysis indicates that producers will substantially improve their incomes with solid returns on their investments. These financial benefits from investment in the sector will not only promote sustainability but enhance replicability and opportunities for scaling up.

E. Risk identification and mitigation

- 31. The design of PASIDP II has benefited from a risk assessment study recently undertaken by the Platform for Agricultural Risk Management. Extreme risks with a low or moderate frequency but high severity (such as extreme droughts or market outbreaks) require the intervention of macro-level players.
- 32. The programme has been confirmed as Environmental and Social Category A since a number of irrigation schemes may result in a loss of environmental services provided by the natural ecosystem or have significant implications that affect a broader area and are not easily remedied. An ESMF and a free prior and informed consent implementation plan have been developed to guide the programme during implementation, and environmental and social impact assessments (ESIAs) will be conducted for those schemes classified as Category A, while environmental and social management plans (ESMPs) will be prepared for those in Category B. The programme will endeavour to avoid schemes that may result in a high probability of resettlement. If any scheme is selected that will trigger physical or economic resettlement, a resettlement action plan (RAP) will be prepared and disclosed as a precondition for financing the scheme. The RAP process should entail meaningful consultation and negotiation with any people who will potentially be affected in accordance with the free prior and informed consent implementation plan. In terms of climate risk, PASIDP II is classified as "medium". The climate risks will be mitigated by increasing the ability of affected communities to adapt to environmental and economic variability, demographic shifts, shocks and long-term changes.
- 33. As a result of the uncertain implications of and resources required for managing ESIAs for Category A schemes, priority will be given to schemes classified as Category B. During early implementation, ESIAs will be prepared and IFAD will organize an independent review to assess their implications and determine the Borrower's and IFAD's capacity to manage and implement these schemes.
- 34. Based on Ethiopia's 2015 Transparency International Corruption Perceptions Index score of 33 and public financial management assessments, the programme's fiduciary risk has been rated as medium. The measures highlighted in section III.D of this report are considered sufficient to mitigate any fiduciary risks.

V. Corporate considerations

A. Compliance with IFAD policies

35. Programme design is aligned with IFAD's Policies for Targeting; Gender Equality and Women's Empowerment; Improving Access to Land and Tenure Security; the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests; the Framework and Guidelines for Land Policy in Africa; and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). The programme

is also aligned with IFAD's Environment and Natural Resource Management Policy and Climate Change Strategy.

B. Alignment and harmonization

36. The programme is fully aligned with the investment priorities under the Government's Growth and Transformation Plan II. Linkages between the steering committees and technical committees, as well as between the management teams of programmes such as the Sustainable Land Management Project and the Agricultural Growth Programme will ensure coordination, collaboration, learning, and scaling up of good practices. Operational linkages with the Ministry of Industry's Small and Medium Enterprise Finance Project and the Agricultural Commercialization Clusters project are expected to result in synergies with the programme.

C. Innovations and scaling up

37. The main innovations for scaling up outcomes include the: (i) mainstreaming of participatory planning and selection of schemes; (ii) development of agribusiness linkages and market access to mitigate marketing risk, especially for perishable crops; (iii) integration of climate-adaptation strategies, including watershed improvement and management, building on experiences with the Community-based Integrated Natural Resource Management Project; (iv) promotion of improved crop husbandry and access to improved inputs and financial services in order to achieve the targeted yields and improve water productivity; (v) enhanced focus on women and youth as priority target groups; (vi) mainstreaming of nutrition-sensitive agriculture; and (vii) alignment with IFAD's new SECAP and international engagement with respect to climate change resilience.

D. Policy engagement

- 38. Productive use of water resources is a priority guiding Ethiopia's agricultural development agenda. Strengthening existing models for irrigation and enhanced watershed management is a vital priority for policy engagement. The programme presents an opportunity to: (i) test new implementation approaches, models and technologies, identify successes and share relevant lessons; and (ii) support the Government's own efforts to assess the implementation and effectiveness of its policies. The lessons learned in pursuing these approaches will be used to inform Government-led dialogue around national policies.
- 39. Much of the policy engagement will take place within the framework established by the Government for policy dialogue with its development partners and other national stakeholders, including the Rural Economic Development and Food Security Sector Working Group, and its subcommittees.

VI. Legal instruments and authority

- 40. A programme financing agreement between the Federal Democratic Republic of Ethiopia and IFAD will constitute the legal instrument for extending the proposed financing to the borrower. A copy of the negotiated financing agreement is included in appendix I.
- 41. The Federal Democratic Republic of Ethiopia is empowered under its laws to receive financing from IFAD.
- 42. I am satisfied that the proposed financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VII. Recommendation

43. I recommend that the Executive Board approve the proposed financing in terms of the following resolutions:

RESOLVED: that the Fund shall provide a loan on highly concessional terms to the Federal Democratic Republic of Ethiopia in an amount equivalent to seventy two million nine hundred and fifty thousand special drawing rights (SDR 72,950,000) (approximately US\$102 million) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide a grant to the Federal Democratic Republic of Ethiopia in an amount equivalent to one million and eighty thousand special drawing rights (SDR 1,080,000) (approximately US\$1.5 million) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide an ASAP grant to the Federal Democratic Republic of Ethiopia in an amount equivalent to seven million eight hundred and seventy thousand special drawing rights (SDR 7,870,000) (approximately US\$11 million) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Kanayo F. Nwanze President

Negotiated financing agreement

NEGOTIATED TEXT 21.07.2016

LOAN NO
GRANT NO
ASAP GRANT NO

FINANCING AGREEMENT

Participatory Small-scale Irrigation Development Programme Phase II (PASIDP II)

between the

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

and the

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

and the

Adaptation for Smallholder Agriculture Programme Trust Fund

Signed in on _____

FINANCING AGREEMENT

IFAD Loan Number:
IFAD Grant Number:
ASAP Trust Grant Number:
Programme Title: Participatory Small-scale Irrigation Development Programme Phase I (PASIDP II) ("the Programme")
The Federal Democratic Republic of Ethiopia (the "Borrower/Recipient")
and
The International Fund for Agricultural Development (the "Fund" or "IFAD")
and
The Adaptation for Smallholder Agriculture Programme Trust Fund ("the ASAP Trust")
(each a "Party" and both of them collectively the "Parties")
HEREBY agree as follows:

I

Section A

- 1. The following documents collectively form this Agreement: this document, the Programme Description and Implementation Arrangements (Schedule 1), and the Allocation Table (Schedule 2) and the Special Covenants (Schedule 3).
- 2. The Fund's General Conditions for Agricultural Development Financing dated 29 April 2009, amended as of April 2014, and as may be amended hereafter from time to time (the "General Conditions") are annexed to this Agreement, and all provisions thereof shall apply to this Agreement. For the purposes of this Agreement the terms defined in the General Conditions shall have the meanings set forth therein.
- 3. The Fund shall provide a Loan, a Grant and an ASAP Trust Grant (together the "Financing") to the Borrower/Recipient, which the Borrower/Recipient shall use to implement the Programme in accordance with the terms and conditions of this Agreement.

Section B

- 1. A. The amount of the IFAD Loan is seventy two million nine hundred and fifty thousand Special Drawing Rights (SDR 72 950 000).
 - B. The amount of the IFAD Grant is one million and eighty thousand Special Drawing Rights (SDR 1 080 000).
 - C. The amount of the ASAP Trust Grant is seven million eight hundred and seventy thousand Special Drawing Rights (SDR 7 870 000).

2. The loan shall be free of interest but bear a service charge of three fourths of one percent (0.75 per cent) per annum, and shall have a maturity period of forty (40) years including a grace period of ten (10) years starting from the date of approval of the Loan by the Fund's Executive Board.

- 3. The Loan Service Payment Currency shall be the US dollar.
- 4. The first day of the applicable Ethiopian Fiscal Year shall be 8 of July.
- 5. Payments of principal and service charge shall be payable on each 15 April and 15 October.
- 6. There shall be one Designated Account (DA) operated by the Ministry of Agriculture and Natural Resources (MoANR) at the National Bank of Ethiopia for all of the Financing sources. A Programme operating account shall be opened in a commercial Bank. A separate bank account shall be opened for the receipt of Counterpart funds from the Borrower/Recipient.
- 7. The Borrower/Recipient shall provide counterpart financing for the Programme in the amount of eighteen million and five hundred thousand US dollars (USD 18 500 000) by covering all duties and taxes.

Section C

- 1. The Lead Programme Agency shall be the Ministry of Agriculture and Natural Resources (MoANR).
- 2. The Programme Completion Date shall be the seventh (7th) anniversary of the date of entry into force of this Agreement.

Section D

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

Section E

- 1. The following are designated as additional grounds for suspension of this Agreement:
 - (a) the key Programme staff have been appointed, transferred or removed from the Programme without the prior consent of the Fund as referred to in Part A and B Section II of Schedule 1 hereto;
 - (b) the Programme Implementation Manual (PIM) referred to in paragraph 14 of Schedule 1 hereto, or any provision thereof, has been waived, suspended, terminated, amended or otherwise modified without the prior consent of the Fund, and the Fund has determined that such waiver, suspension, termination, amendment or modification has had, or is likely to have, a material adverse effect on the Programme.

2. The following are designated as additional general conditions precedent to withdrawal:

- (a) The Programme Coordination and Management Unit (PCMU) at federal and regional level shall have been duly established and key Programme management positions shall have been filled by personnel acceptable to IFAD;
- (b) The Borrower/Recipient shall have established a National Programme Steering Committee (NPSC) as referred to in paragraph 6 Section II of Schedule 1 hereto;
- (c) The Borrower/Recipient shall have prepared a draft PIM in form and substance satisfactory to the Fund.
- 3. This Agreement is subject to ratification by the Borrower/Recipient.
- 4. The following are the designated representatives and addresses to be used for any communication related to this Agreement:

For the Borrower/Recipient:

[title of the representative] [name and address of the ministry]

For the Fund:

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

For the Adaptation for Smallholder Agriculture Programme Trust Fund

President of the International Fund for Agricultural Development in its capacity as Trustee of the Adaptation for Smallholder Agriculture Programme Trust Fund Via Paolo di Dono 44 00142 Rome, Italy

This Agreement, dated, has been prepared in the English language in two (2 original copies, one (1) for the Fund and the ASAP Trust and one (1) for the Borrower/Recipient.
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
Authorized Representative
International Fund for Agricultural Development
Kanayo F. Nwanze President
Adaptation For Smallholder Agriculture Programme Trust Fund
Kanayo F. Nwanze President of the International Fund for Agricultural Development in its capacity as Trustee of the Adaptation for Smallholder Agriculture Programme Trust Fund

Schedule 1

Programme Description and Implementation Arrangements

I. Programme Description

Target Population. The Programme shall benefit the poor and food insecure rural households in drought-prone regions of Amhara, Oromia, Southern Nations, Nationalities and Peoples Region (SNNPR), and Tigray (the "Programme Area"). Any changes to this Programme Area envisaged by the Parties shall be agreed into the Programme Implementation Manual.

Goal. The overall goal of the Programme is to contribute to increased prosperity and improved resilience to shocks in food insecure areas of Ethiopia.

Objective. The Programme objective is to provide improved income and food security for rural households on a sustainable basis by developing small-scale irrigation schemes and adjacent watersheds.

Components. The Programme shall consist of the following Components:

Component A: Investment in Small-scale Irrigation Infrastructure

The objective of this component is to provide farmers with access to sustainable irrigation schemes.

<u>Sub-component A.1: Irrigation Scheme Participatory Planning and Preparation</u>

The Programme will support the implementation of a pipeline of irrigation schemes through (a) the identification and selection of schemes, (b) feasibility studies and detailed designs following improved quality guidelines, (c) the establishment and strengthening of Irrigation Water Users Associations (IWUAs) acting as the representative of the irrigation farmers, and (d) the environmental and social impact studies and environmental and social management plans.

Sub-component A.2: Small- Scale Irrigation Infrastructure Development

The Programme will support the development of the selected irrigation schemes, including multiple user systems alongside irrigation through (a) the promotion of innovative technologies, (b) the supervision of the construction and contract management, and (c) the irrigation management transfer to the IWUAs. The ASAP Trust Grant will allow the development of guidelines on resilient construction standards and, if needed, development of additional alternative water resources.

Component B: Investment in Capacity for Sustainable Agriculture

The objective of this component is to increase farmers market-oriented skills and capacity for sustainable agriculture by supporting a range of activities designed to ensure that beneficiaries will operate in an environment that is more conducive to rural commercial development.

Sub-component B.1: Agribusiness Linkages and Market Access

The Programme will contribute to improve the access to appropriate agricultural and financial services for smallholders through the following measures: (a) the strengthening of farmers' cooperatives, (b) the support to emergence of agribusiness linkages via the Market Access Alliances (MAAs), and (c) the access to financial services and the development of agribusiness linkages.

Sub-component B.2: Capacity Building and Empowerment of Smallholder Farmers

The Programme will support the improvement of productivity in intervention areas inter alia by, (a) providing Agricultural Development Plans (ADP) in order to define the interventions for agricultural development, (b) using Farmer Research Groups (FRGs) as key vehicles to assess the viability of the commodities for irrigation agriculture, (c) providing agronomic support to integrate climate smart intervention into the day to day farming practices, (d) improving seed availability, and (e) promoting nutrition-sensitive agriculture. These measures will be co-funded by the ASAP Trust Grant.

<u>Sub-component B.3: Watershed Management</u>

The Programme will support improved and sustainable watershed management on rain-fed areas adjacent to the irrigation schemes. In this respect, (a) Watershed Management Teams (WMTs) shall be formed to rehabilitate degraded watersheds, conserve water and soil and mitigate climate change and (b) Conservation Agriculture shall be promoted. These measures will be co-funded by the ASAP Trust Grant.

Component C: Programme Management, M&E, and Knowledge Management This component will focus on (a) Learning and Knowledge Management, and (b) Programme Management, Monitoring and Evaluation.

II. Implementation Arrangements

A. Programme Management

The Lead Programme Agency (LPA).

The Ministry of Agriculture and Natural Resources (MoANR) will be the LPA with overall responsibility for the Programme implementation. Within the MoANR, the State Minister for Natural Resources, will be responsible for coordinating the implementation of the Programme with the support of the Directorate of Small Scale Irrigation (SSI).

The National Programme Steering Committee (NPSC)

- 6.1 Composition. The NPSC shall be chaired by the State Minister MoANR and shall be composed of State Ministers from the relevant ministries, such as Ministry of Water, Irrigation & Electricity, Ministry of Trade, Ministry of Environment, Forest & Climate Change, Ministry of Finance and Economic Cooperation and Ministry of Industry, as well as executives of the relevant institutions, such as the Federal Cooperative Agency, Ethiopian Agricultural Research Institute and others as deemed necessary and in alignment with the strategic focus and approach of the Programme. In order to enhance efficiency, the Federal Programme Coordination and Management Unit (FPCMU) with support of experts drawn from relevant directorates and institutions will serve as the technical arm of the NPSC; and the National Programme Coordinator shall act as the NPSC Secretary.
- 6.2. Responsibilities. The NPSC will provide overall policy and strategic guidance on Programme focus, priorities and institutional strengthening in order to inter alia (a) ensure that the Programme is moving in the right direction towards achievement of its development objective; (b) contribute to the higher level sector policy and strategic goals, under GTP2; (c) is implemented in harmonization and alignment with other Programmes and initiatives in the sector and (d) review the implementation status of internal and external audit recommendations. The NPSC meetings will be aligned with Government budget cycle and other critical Programme-specific approval requirements.

B. Programme Coordination

At Federal level

- 7.1 The Federal Programme Coordination and Management Unit (FPCMU)
- 7.1.1 Composition. The FPCMU, established during the first phase of the Programme, will be under the leadership of a National Programme Coordinator who will report to the State Minister for Natural Resources. The FPCMU will include, inter alia, Monitoring and Evaluation, Knowledge Management, MIS/GI, Social Safeguard, Environmental Safeguard, Climate Change, Capacity Building, Gender, Senior Procurement, Senior Finance Manager Specialists and an Accountant.
- 7.1.2 Responsibilities. The FPCMU will provide day to day management and will play a key role in (i) planning, monitoring and evaluation, (ii) coordinating stakeholders at federal level and (iii) leading the quality control of investments, including ensuring cost-efficiency. The FPCMU capacity will be strengthened on issues related to marketing, safeguards and climate change adaptation.

Within the FPCMU, a Programme Market Facilitation Team (PMFT) will devise the strategy and time-table for support at the national and provincial level, provide a link to policy makers and high-level market entities, and provide direct technical support at Regional levels. A Safeguards specialist will ensure proper application of the ESMF and a Climate Change Adaptation specialist will provide leadership on issues related to climate change adaptation mainstreaming.

At Regional level

The Programme will be managed by the respective Regional governments with the Heads of the Bureaus of Agriculture and Natural Resources providing overall leadership and ensuring that the Programme is implemented in accordance with the agreed regional priorities, and in alignment with federal strategic agricultural development goals.

- 8.1 Regional Programme Steering Committees (RPSCs)
- 8.1.1 Composition. The RPSCs, chaired by the respective Heads of Bureaus of Agriculture and Natural Resources, will be expanded to include Heads of the relevant Bureaus and other representatives from market and trade, cooperative agency, environmental protection, land use management, Agricultural Research Institutes, and others as deemed necessary.
- 8.1.2 Responsibilities. The RPSCs will provide policy and strategic guidance in planning, prioritization and implementation of Programme investments. The RPSC will approve the AWPB and key programme documents such as implementation progress, financial and audit reports.
- 8.2 Regional Project Coordination and Management Units (RPCMUs)
- 8.2.1 Composition. The RPCMUs will be led by a regional coordinator. The core RPCMU experts will include inter alia, an M&E officer, a financial management officer, a procurement officer, a market/value chain officer, an irrigation engineer, an agronomist, and a water and natural resources management officer.
- 8.2.2 Responsibilities. The RPCMUs will be responsible for the day to day management of the Programme in all Programme regions. The RPCMUs will play a leading role in planning investments, procurement and coordination of design consultants, works contractors and capacity building service providers. A Market Development Facilitation Team (MDFT) will provide direct training and mentoring for all cooperatives engaged at each irrigation scheme, and would initially convene and subsequently provide training and mentoring to MAAs involving all relevant commercial entities. Regional Environmental and Social Officers will (i) conduct environmental and social monitoring on a day to day basis, (ii) ensure

implementation of mitigation measures as identified in the scheme Environmental and Social Management Plan (ESMP) and (iii) provide technical support to the implementation of climate change adaptation measures.

At Woreda and Programme site level

Woreda Focal Point

A Woreda Focal Point will work with a team of Development Agents at Kebele level to oversee implementation and will handle day-to-day issues in programme implementation, in close collaboration with the RPCMU, and will ensure the quality of investments.

9.1 Farmer-based organisations

Farmer-based organisations such as (i) IWUAs will actively participate in the entire process of scheme development from identification to the final scheme hand-over, (ii) multi-purpose cooperatives will help farmers to market their surplus produce, (iii) watershed management teams will play a leading role in improving land and water management through watershed/catchment rehabilitation and management activities.

9.2 Technical Assistance (TA)

Partnerships will be envisaged with (i) the Agricultural Transformation Agency (ATA) for the mobilization of technical assistance with regard to key innovative aspects of the programme and also; (ii) CGIAR centres for all the agricultural and environmental issues including water productivity, watershed management, and modelling local-level climate change scenarios; (iii) Ethiopian Agricultural Research Institute and Universities

C. Programme Planning, Monitoring and Evaluation, Learning and Sharing Knowledge, Supervision

Planning. The Programme will be implemented on the basis of approved Annual Work Plans and Budgets (AWPBs). The budgeting process will be done jointly between FPCMU, RPCMUs, Woredas and implementing partners. The FPCMU will consolidate the budget, present it for approval by the NPSC and submit the estimates to MoFEC. A No Objection from IFAD will be required for each AWPB during the implementation.

Monitoring and Evaluation. The Programme M&E system will collect appropriate and timely information to track programme progress towards outputs, outcomes, impact and sustainability. It will be the basis of progress reports and will enable Programme management at all levels, local communities and other stakeholders to keep track of interventions progress against the AWPB. The overall responsibility for the Programme's M&E system will rest with the M&E Specialist of the FPCMU, who will be supported by the RPCMU M&E Specialists.

Learning and Knowledge Management. A Learning and Knowledge Management (L&KM) strategy will be developed by the FPCMU M&E specialist and the Knowledge Management Specialist in consultation with Regions, Woredas and Kebeles helping to inform activities, replication and scaling up.

Programme audits. The external audit will be carried out by either the Office of the Federal Auditor General (OFAG) or the Audit Services Corporation (ASC). If OFAG or ASC do not carry out the audit in accordance with the above, OFAG will provide a list of accredited private audit firms to the LPA. The selection of the firm will be undertaken through a competitive process acceptable to the Fund.

D. Programme Implementation Manual (PIM)

The Programme shall be implemented in accordance with the approved AWPB and Procurement Plan and the PIM, the terms of which shall be adopted by the LPA subject to the Fund's prior approval. The PIM shall include, among other things: (i) terms of reference, implementation responsibilities and appointment modalities of all Programme staff and consultants; (ii) Programme operational manuals and procedures; (iii) monitoring and evaluation systems and procedures; (iv) a detailed description of implementation arrangements for each Programme component with special reference to the ESMP/Resettlement Action Framework (RAF) and the Environmental and Social Impact Assessment (ESIA)/Resettlement Action Plan (RAP) that will be required; (v) modalities for the selection of service providers to be based on transparent and competitive processes; (vi) financial management and reporting arrangements including accounting, approval of payments, financial reporting, internal controls, fixed asset management, as well as internal and external audit; and (vii) the good governance and anti-corruption framework.

Schedule 2

Allocation Table

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

Category	IFAD Loan Amount Allocated (expressed in SDR)	IFAD Grant Amount Allocated (expressed in SDR)	ASAP Trust Grant Amount Allocated (expressed in SDR)	Percentage
I. Training	2 700 000		4 170 000	100% net of taxes
II. Works	50 600 000		650 000	100% net of taxes and net of beneficiaries' contributions
III. Consultancies	2 550 000	970 000	1 280 000	100% net of taxes
IV. Goods, Services and inputs	6 050 000		710 000	100% net of taxes and net of beneficiaries' contributions
V. Salaries and allowances	2 300 000		290 000	100% net of taxes and net of Government contributions
VI. Operating costs	1 500 000			100% net of taxes and net of Government contributions
Unallocated	7 200 000	110 000	770 000	
TOTAL	72 950 000	1 080 000	7 870 000	

(b) The terms used in the Table above are defined as follows:

Category I – Training funded by the IFAD loan principally relates to strengthening of Irrigation Water Users' Associations, Farmers' Organizations and Cooperatives; Training funded by the ASAP Trust Grant fund principally relates water efficiency and water productivity, climate smart agriculture and watershed management;

Category III – Consultancies funded by the IFAD loan principally relate to the feasibility studies, engineering design, site supervision, baseline studies and impact assessment. Consultancies funded by the IFAD grant, shall cover

eligible expenditures for Capacity Building in Monitoring and Evaluation and International Competitive National and International Expertise to provide analytical and technical support to the FPCMU in (i) assuring the quality of market and feasibility studies; (ii) supporting market access facilitation; and (iii) learning and knowledge management. Consultancies funded by the ASAP Trust Grant principally relate to climate analyses, and the preparation of agricultural development plans;

2. Retroactive financing. As an exception to Section 4.08(a)(ii) of the General Conditions, specific eligible expenditures up to the equivalent of two million United States Dollars (USD 2 000 000) incurred from 1 July 2016 to 31 December 2016 may be prefinanced by the Government and reimbursed from the Financing after the Financing Agreement has entered into force and the conditions precedent to withdrawal have been met. These specific eligible expenditures consist of baseline survey, studies and selection of appropriate scheme sites, training needs assessment, workshops, completion of on-going schemes within PASIDP II Woredas, salaries and allowances and operating costs.

Schedule 3

Special Covenants

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

- 1. Gender. The Borrower/Recipient shall develop a gender mainstreaming guideline for the Programme to ensure that gender concerns shall be reflected in all Programme activities throughout the implementation period, in order to offer equal opportunities under the Programme to men, women, women headed households and youths.
- 2. Social, Environmental and Climate Change due diligence. The Borrower/Recipient assures that the ESMF and RAF as required by IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) have been adopted and that the Programme will be carried out in accordance with the aforementioned documents. The Borrower/Recipient shall ensure that prior to carrying out any construction of irrigation facilities and related items, a full ESIA/ESMP and a RAP, will be duly completed, where it is required, with adequate budget for their implementation, so as to ensure the full social and environmental sustainability of any investment of the Programme. Before supporting any intervention that might affect the land access and use rights of communities, the Programme will ensure that their free, prior and informed consent has been solicited through inclusive consultations based on full disclosure of the intent and scope of the activities planned and their implications. In order to ensure SECAP compliance in form and quality, the first two ESIAs in each region are subject to prior review by IFAD.
- 3. Implementation. The Programme will be implemented in compliance with the main IFAD policies, strategies and procedures, inter alia, with (i) IFAD's Natural Resources Management Policy, Climate Change Strategy and SECAP, (ii) IFAD's Policy on Improving Access to Land and Tenure Security, and other policy tools such as (i) the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests; and (ii) the Framework and Guidelines for Land Policy in Africa.
- 4. Environmental Audit. The development of measures to mitigate social and environment impacts and the implementation will be reported upon annually and the report will be subject to an independent annual audit that will be submitted to IFAD and the NPSC.
- 5. Accounting Software. Within the first year of implementation, an accounting software shall have been duly implemented in accordance with a comprehensive chart of accounts satisfactory to the Fund.
- 6. Programme Financial Reporting. The Programme financial reporting shall cover Category of Expenditures, Components and Financier and shall be prepared on a modified cash basis.

General Conditions (to be annexed)

Logical Framework¹

Results Hierarchy	Perf		Means of Verification				
Results Hierarchy	Indicators ²	Baseline	End Target ³	Source	Frequency	Responsibility	Assumptions
Goal: Increased prosperity	1. # of HH participating in the						
and improved resilience to	Programme graduated above the	TBD ⁴	TBD	Reference	PY1, PY7	FPCMU, consulting firm	
shocks in food insecure areas of Ethiopia	poverty line 3/4 years after			surveys	1 11,1 17		
от Еппоріа	schemes are operational						
	2. % increase in value of	TBD	TBD	Reference		FPCMU,	
	assets of participating			surveys	PY1, PY7	consulting firm	
	households			Surveys		consuling iiiii	
	3. % reduction in prevalence			5.		======================================	
	of child malnutrition	TBD	TBD	Reference	PY1, PY7	FPCMU,	
				surveys	,	consulting firm	
	4. Number of smallholder						
	household members supported in	0	480,000	Reference surveys	PY1, PY3, PY7	FPCMU, consulting firm	
	coping with the effects of climate						
	change (ASAP indicator) 5			Surveys		consuming min	
Development Objective:	5. # of direct beneficiary			Progress		FPCMU,	Effective
Improved income and food	households	0	108,750	reports	Annual	consulting firm	agribusiness
security for rural households	6. Increase in household			Toporto	PY1, PY3, PY7	FPCMU, consulting firm	linkages
on a sustainable basis	income from project support						_
	Farm model A – 1 ha (ETB)	5,210	18,772				Efficient start-up
	Farm model B – 1 ha (ETB)	7,833	29,072	Reference			
	Farm model C – 1 ha (ETB)	5,499	19,583	surveys			
	Farm model D – 1 ha (ETB)	6,298	29,84				
	Farm model E – 1 ha (ETB)	5,295	9,665				
	Farm model F – 1 ha (ETB)	9,108	15,073				
Component 1: Investments in	n Small-Scale Irrigation						
Outcome 1: Farmers have	7. # of farmers that have			Surveys and	PY1, PY3,	RPCMU.	Ownership of
sustainable access to	access to irrigation schemes	0	46,250	specialized	PY1, PY3,	implementers	beneficiaries in
irrigation schemes	ŭ			studies	1 17	-	irrigation
Output 1.1. Selection of	8. # of feasibility studies	0	18,400 ha	Progress	Quarterly	RPCMU,	schemes (A)
irrigation schemes for investment	approved	· ·	10,700 110	report Progress	Quarterly	implementers	` '
invesiment	9. 100% of IWUAs operate	TBD	150 IWUAs		Quarterly RPCMU,	No elite capture	
	sustainably	100	130 10000	report	Qualiterry	implementers	(R)
Output 1.2 Irrigation	10. # of ha farmland under	TDD	40.400	0	PY1, PY3,	RPCMU,	
schemes developed or	operational irrigation	TBD	18,400 ha	Survey	PY7	implementers	

^{1 20} Key performance indicators, including 5 ASAP Indicators
2 If possible, indicators are disaggregated by gender of household head, gender and age.
3 The impact survey of PASIDP (IFAD, 2016) was used to determine the end targets.
4 TBD= To Be Determined after baseline survey
5 Measured by household resilience index. To be determined at the beginning of the programme with the technical assistance of IFAD-ECD team

Deculto Hierorchy	Perf		Risks				
Results Hierarchy	Indicators ²	Baseline	End Target ³	Source	Frequency	Responsibility	Assumptions
upgraded on 15,000 ha	11. Value of Infrastructure [USD] protected from extreme weather events (ASAP Indicator)	0	80 Million	Progress Report	Annual	FPCMU	
Component B: Investment in	capacity for sustainable agriculture						
Outcome 2: Farmers have increased market-oriented skills and capacity for sustainable agriculture.	12. 70,000 households achieve at least 50% increase in farm income	Maize: 1.5MT/ha Wheat: 1.5 MT/ha Onion: 4 MT/ha Chickpea:0.7MT/ha	Maize: 3.0 MT/ha Wheat: 2.7 MT/ha Onion: 10 MT/ha Chickpea: 1.8 MT/ha	Surveys and specialized studies	PY1, PY3, PY7	FPCMU and consulting firm	Access to financial services (A) Sufficient
Output 2.1 Improved access to appropriate inputs, access to agricultural and financial	13. # of functional cooperatives that provide at least 3 services to clients	TBD	100	Progress report	Quarterly	RPCMU, implementers	capacity of public services – (A)
services for smallholder producers	14. # of households with strengthened financial literacy	TBD	50,000	Progress report	Quarterly	RPCMU, implementers	Climate change measures adopted (A)
	15. In and off farm employment creation	TBD	15,000	Progress report	Quarterly	RPCMU, implementers	
Output 2.2 Improved productivity in intervention areas	16. # of people trained in sustainable production practices and technologies, including NRM (ASAP Indicator)	TBD	15,000	Progress report	Quarterly	RPCMU, implementers	
	17. Households in vulnerable areas with increased water availability for agricultural production (ASAP Indicator)	0	80,000 households	Survey	PY1, PY3, PY7	RPCMU, implementers	
Output 2.3 Improved and sustainable watershed management	18. # of ha under improved watershed management (ASAP indicator)	0 ha	60,000 ha	Progress report	Quarterly	RPCMU, implementers	
	19. Extent of land with rehabilitated or restored ecosystem services (ASAP Indicator)	0	40%	LDSF ⁶	PY1, PY3, PY7	RPCMU, implementers	
	20. Crop yield stability over seasons ⁷	TBD	70%	Progress report	PY1, PY3, PY7	RPCMU, implementers	

⁶ Land Degradation Surveillance Framework (LDSF) for monitoring land and environmental health surveillance, ⁷ Would be used in areas where yield and rainfall data is regularly recorded