



**GREEN
CLIMATE
FUND**

Meeting of the Board
9 – 13 November 2020
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Provisional agenda item 11

GCF/B.27/02/Add.14

21 October 2020

Consideration of funding proposals - Addendum XIV

Funding proposal package for SAP017

Summary

This addendum contains the following six parts:

- a) A funding proposal titled "Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi";
- b) No-objection letter issued by the national designated authority(ies) or focal point(s);
- c) Secretariat's assessment;
- d) Independent Technical Advisory Panel's assessment;
- e) Response from the accredited entity to the independent Technical Advisory Panel's assessment; and
- f) Gender documentation.

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Simplified Approval Process Funding Proposal

Project/Programme title: Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi

Country(ies): Burundi

National Designated Authority(ies): Ministry of Environment, Agriculture, and Breeding

Accredited Entity: International Fund for Agricultural Development

Date of first submission: 4/24/2020 V.1

Date of current submission/
version number: 8/11/2020 V.9

If available, indicate GCF code: 5d1e03bdab5322bd79f4a27d



Contents

Section A **PROJECT / PROGRAMME SUMMARY**

This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

Section B **PROJECT / PROGRAMME DETAILS**

This section focuses on describing the context of the project/programme, providing details of the project/programme including components, outputs and activities, and implementation arrangements.

Section C **FINANCING INFORMATION**

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D **LOGIC FRAMEWORK, AND MONITORING, REPORTING AND EVALUATION**

This section includes the logic framework for the project/programme in accordance with the GCF Results Management Framework and Performance Measurement Framework, and gives an overview of the monitoring, reporting and evaluation arrangements for the proposed project/programme.

Section E **EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA**

This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Section F **ANNEXES**

This section provides a list of mandatory documents that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.

Note to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 10 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - *Simpler documents*: key documents have been simplified, and presented in a single, up-front list;
 - *Fewer pages*: A shorter form with significantly fewer pages. The total length of funding proposals should **not exceed 20 pages**, annexes can be used to provide details as necessary;
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the [GCF Information Disclosure Policy](#).

Please submit the completed form to:

fundingproposal@gcfund.org

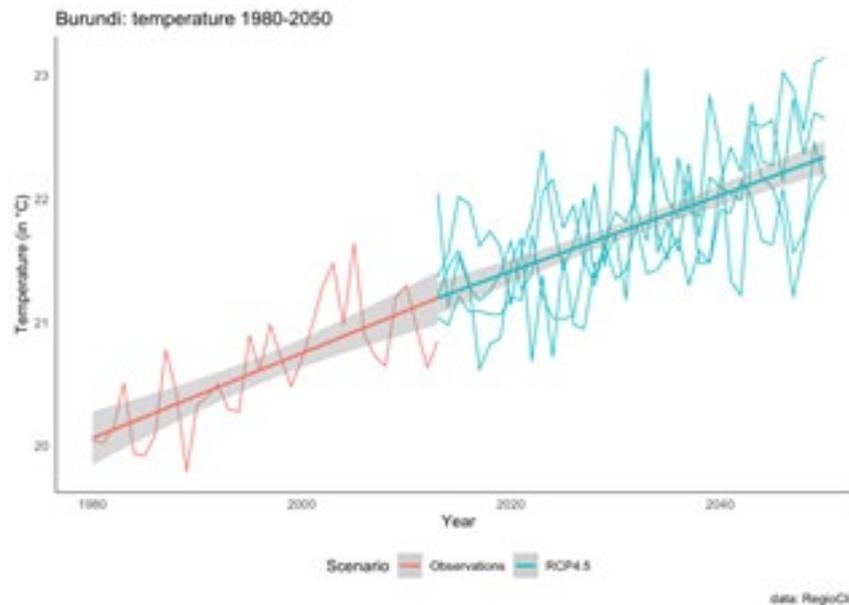
Please use the following name convention for the file name:

“SAP-FP-[Accredited Entity Short Name]-[yyymmdd]”

A. PROJECT/PROGRAMME SUMMARY					
A.1. Has this FP been submitted as a SAP CN before?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
A.2. Is the Environmental and Social Safeguards Category C or I-3?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
A.3. Project or programme	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.4. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector	A.5. RFP	Not applicable
A.6. Result area(s)	<p><u>Mitigation:</u> Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation: 0% <input type="checkbox"/> Low emission transport: 0% <input type="checkbox"/> Buildings, cities and industries and appliances: 0% <input type="checkbox"/> Forestry and land use: 0%				
	<p><u>Adaptation:</u> Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities: 20% <input checked="" type="checkbox"/> Health and well-being, and food and water security: 40% <input checked="" type="checkbox"/> Infrastructure and built environment: 20% <input checked="" type="checkbox"/> Ecosystem and ecosystem services: 20%				
A.a. Total investment (GCF + co-finance)	Amount: 31,721,500 USD		A.a.1 Total GCF funding requested	Amount 9,994,500 USD	
A.b. Type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan <input type="checkbox"/> Equity <input type="checkbox"/> Guarantees <input type="checkbox"/> Others:				
A.7. Implementation period	48				
A.8. Total project/ programme lifespan	240	A.9. Expected date of internal approval	4/19/2020 10:00:00 PM		
A.10. Executing Entity information	The Republic of Burundi (RoB) through its Ministry of Finance and its Ministry of Environment, Agriculture and Livestock.				
A.11. Scalability and potential for transformation (Eligibility for SAP, max. 100 words)					
<p>The project aims at upscaling activities prioritized in Burundi's NDC and which are successfully increasing resilience of local population to the negative impacts of climate change.</p> <p>These activities consist in transforming the current agro-ecological land and water management practices in the upper and mid-catchments of the Imbo and Moso basins (15,000 ha) towards more sustainable and productive land use practices. This will in turn reduce hillslope and instream erosion upstream and siltation and flooding risks of the irrigation schemes downstream, and safeguard corresponding investments. The lessons learned from this project could support its upscaling to other 92,000 ha in the country at a later stage.</p>					
A.12. Project/Programme rationale, objectives and approach (max. 300 words)					
Climate rationale					

Based on the RCP 4.5 scenario, Burundi's average annual temperature is likely to increase by 0.75°C for 2021-2050 compared to 1991-2020 period (Fig. 1 below, A1 in Annex 16). Rainfall will become increasingly variable with more extremes and increase by about 10% in the southern part of the country (Fig. 2 below, A2 in Annex 16, NDC). Temperature variability in 2021-2050 compared to 1991-2020 period: +23.8%. Precipitation variability in 2021-2050 compared to 1991-2020 period: +22.7%. Climate projections also indicate that rainfall tends to decrease in March / April and August / September by 10 to 25% prolonging the dry periods and increasing drought risk significantly. As a consequence, high intensity rainfall during the short wet season will increase. These climate changes will engender a number of increased risks associated with: (i) season creep and changes to the growing seasons of crops and forests; (ii) episodic flooding of swamps and lowlands; (iii) land degradation from deforestation and loss of soil fertility from more frequent and intense runoff events and (iv) more frequent extreme weather events (hail, violent showers, heavy winds, etc.).

The changes in precipitation, in particular, will put at risk several Government's investments that were made to improve the livelihood of its citizens, rehabilitate irrigation schemes and increase food security.



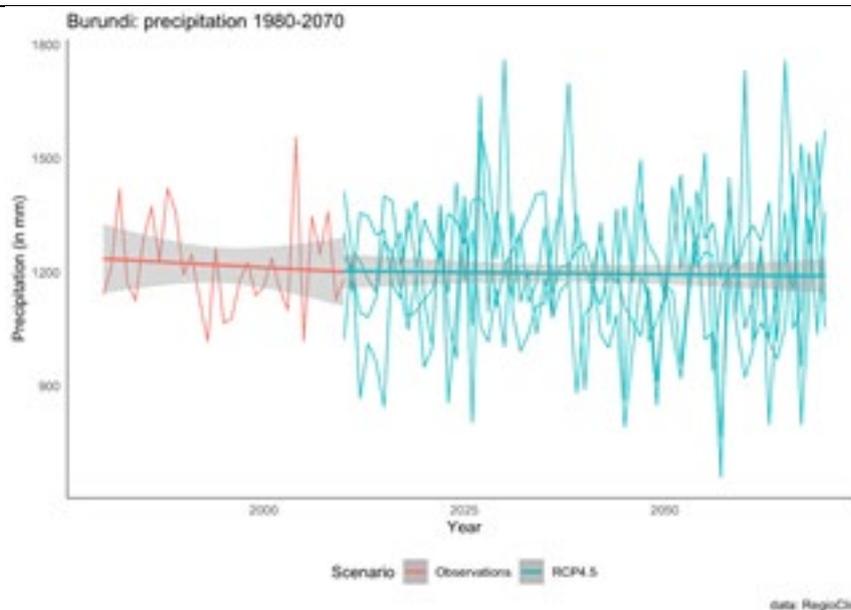


Figure 1 Mean temperature changes in Burundi

Fig. 2 Precipitation changes in Burundi

Purpose and activities of the project

To safeguard these investments against the threat of increased flooding and the resulting siltation of the irrigation canals and improve livelihoods and food and water security throughout the basin, the project will promote better agro-practices in the upper and mid catchment of the basins to reduce surface run-off and the resulting soil erosion, through three major components:

- 1) Improvement of soil and water management through the adoption of best practices in agro-ecosystem management by land users;
- 2) Capacity building of actors across all levels on best agro-ecosystem management practices for enhanced soil and water conservation;
- 3) Development of an enabling environment for water and soil conservation.

Reduced surface runoff will reduce erosion and soil loss, increase infiltration and groundwater recharge and storage and thereby mitigate the impact of prolonged dry seasons with higher groundwater base flow. Erosion rates exceed 200 t/ha per year in the Imbo and Moso basins, with an average density of 1.5 g/cm³ this corresponds to a soil loss of more than 1 cm per year and a transport of 20.000 t per km² per year (Fig. A6 in Annex 16).

Climate impacts of the project

This project comprises climate change adaptation activities prioritized in the NDC and NAP, which will increase the resilience of 240,000 direct beneficiaries and 333,540 indirect beneficiaries (irrigation scheme users), protect their livelihoods and the agro-ecosystems they depend upon. It will also ensure the

sustainability of USD 57 million of public investments in the face of climate change. The overall project beneficiaries include 153,280 households (or 735,744 persons who are covered under PIPARV-B), who will gain knowledge on agricultural best practices, nutrition best practices, and/or benefit from the improvement of soil and water management infrastructures in the basins.

Rationale for use of GCF funding

The GCF funding will climate proof investments in rehabilitating the irrigation schemes and improving the country's food security against climate change risks. This will contribute to a sustained year-round income and food for the most vulnerable people.

Short justification for chosen instrument to be financed by the GCF

A grant is the most appropriate financial instrument, taking into account the barriers described in section B1, the considerable investments already made in rehabilitating the irrigation schemes and the debt situation of the country.

B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

Burundi is one of the poorest countries facing several climate change related challenges, including a worsening food security situation. A study on flood risk and drought risk indicates that the target areas are located in regions with particularly high flood risk (Imbo) and increased drought risk (south-east, Moso) (Fig. A5 in Annex 16)[1]. The increase of extreme floods and droughts which are anticipated in the Imbo and Moso plains are expected to cause a yield decline of 5-25% in the coming decades and reduce long-term growth by 2.4% per year[2]. In 2017, Burundi was ranked number 171 out of 181 countries in the ND-GAIN index (2019).

Cognisant of these risks, the Government in partnership with the International Fund for Agricultural Development (IFAD) has endeavoured to rehabilitate a rice irrigation scheme on the plains, with the aim of improving the food security situation in the country and creating a source of income for the poor. Since 2016, the 5-year National Programme for Food Security and Rural Development in Imbo and Moso (PNSARDR-IM) has rehabilitated nearly 1,500 hectares against a target of 2,470 hectares, and protected nearly 10,000 hectares of watersheds out of 12,000 hectares planned. Rehabilitation of the remaining 867.5 Ha is ongoing and project will achieve 100% of target. The watershed protection on the remaining 2,581 Ha is work in progress and so the project will achieve 100% completion. In the same period, more than 329,900 smallholder farmers, among which 35% and 30% women and youths respectively, have derived their livelihoods directly from the irrigation schemes and 95,340 jobs have been created. However, the investment faces a major siltation risk from the projected increased surface runoff and the associated soil erosion upstream. This threat has the potential to render the scheme inoperable within a few years. This situation is aggravated by the fact that the catchment is made up of very steep slopes where smallholder farmers produce their crops with minimal soil and water conservation considerations and are also at risk of reduced livelihood opportunities through land degradation.

The GCF funds will climate proof the PNSADR-IM investments and build the climate resilience of the livelihoods of upstream and downstream beneficiaries, setting the ground for green agri-business development. Climate proofing entails investments that reduce surface run-off and soil erosion in the catchment under the threat of increased precipitation resulting from climate change impacts. The proposed project will be part of a larger IFAD initiative “*The Agricultural Production Intensification and Vulnerability Reduction Project (PIPARV-B)*” which is scaling up PNSADR-IM with a greater focus on integrated land management involving the optimal use of natural resources tailored to the growing population pressure. The PIPARV-B is in the initial stages of implementation (2019-26). It focuses on watershed rehabilitation and improved management; capacity building of smallholders including through farmer field schools and strengthening of farmer organisations; rehabilitation of rural infrastructure; and improving market access.

Currently, smallholder farmers within the upper and mid catchment areas of the Imbo and Moso Basins practice minimal soil and water conservation practices, and several barriers impede them to adopt more sustainable practices:

1) Social barriers:

- 1a) Limited awareness of more sustainable practices;
- 1b) Cultural norms.

2) Financial barriers:

- 2a) Limited financial base to invest in these practices;
- 2b) Limited financial literacy and access to financial services.

3) Regulatory barriers:

- 3a) Insufficient regulatory framework;
- 3b) Limited incentives for soil and water conservation.

4) Institutional barriers:

- 4a) Limited institutional capacity to provide necessary technical and material support to farmers upstream;
- 4b) Limited site-specific R&D.

[1] Külls C. (2014) Hydro-Power Atlas of Burundi, Hydrological Study. For Sher Ingénieurs.

[2] Waithaka et al., 2013, East African Agriculture and Climate Change: A Comprehensive Analysis.(based on DSSAT crop model.:<http://C:/Users/e.doro/Downloads/EACclimatechange-overview.pdf>.)

B.2. Project/Programme description (max. 1,000 words)

This project aims at increasing agricultural productivity for farmers in the upper, middle and lower catchment through adoption of better agro-ecosystem management practices to conserve soil and moisture. The project will support farmers in reforestation, reduction of soil erosion, improvement of fertility, better water management and reduction of wood consumption (for household energy needs) among others. The SAP intervention is expected to set the norm for a national climate proofing approach for both infrastructure and watersheds, which are the productive landscapes.

Theory of change: The goal of the project is to *increase the resilience to climate change of the livelihoods and improve food and water security of communities in selected watersheds and basins*. The Project's main objective is: farmers' resilience to climate change built in the upper, middle and lower catchment and agricultural productivity and food security increased through adoption of better agro-ecosystem management practices to conserve land and water resources. The project will accomplish this through three inter-linked components: improvement of soil and water management through the adoption of best practices in agro-ecosystem management by land users; capacity building of actors at all levels on best agro-ecosystem management practices for enhanced soil and water conservation; and development of an enabling environment for water and soil conservation.

In order to build resilience of watershed communities, benefit sharing between upstream and downstream communities is essential through co-generated landscape management plans informed by local evidence. The priorities identified in these plans will be targeted at addressing land degradation and protecting prior investments such as irrigation infrastructure downstream. These priorities will be financed by the project to overcome the barriers of limited site specific research and development as well as the financial resources to invest in sustainable practices. Farmers should also be supported through investments in rain-water harvesting technologies to improve their agricultural productivity. The investment will be sustained by building local capacities in installation and maintenance of the technologies. It will overcome the barriers of cultural norms that lead to the sub-optimal agricultural practices and limited knowledge. The sustainability of the investments will be further sustained through promotion of local innovation to address the challenges and priorities identified in the management plans. Converting the innovations into viable businesses will overcome the barriers such as lack of incentives to invest in soil and water conservation and the project support to the incubators will overcome the barrier of limited financial literacy and access. The landscape management plan implementation entails a sharing of benefits and knowledge among the farmers. This peer to peer learning will increase awareness of sustainable practices and empower communities within their localities to seek solutions thus overcoming social and institutional barriers. Effective landscape management planning and implementation requires an enabling environment, which currently needs to be strengthened in Burundi. The project will provide support to overcome the regulatory barriers.

By improving soil and water management in the upper and mid catchment areas in the Imbo and Moso basins, flooding and the subsequent silting of the plains (and the irrigation schemes) will be reduced (Annex 2d). This will increase the operational lifetime of the irrigation schemes developed by the Government, in partnership with IFAD, to improve the country's food security situation alongside a growing population trend. By adopting soil and water conservation practices, farmers will reap the co-benefits of increased productivity, climate resilience and improved well-being. Adoption of improved cook-stoves and reforestation practices will reduce the pressure on natural resources and improve the soil and water conservation in the productive landscapes. The beneficiaries include smallholders upstream of the irrigation schemes that will benefit from soil and water conservation techniques as well as those benefiting indirectly from the schemes through the safeguarding of these investments and ensuring their continued functionality. The project will support women and young people in a proactive and inclusive manner to build their resilience to climate change.

The project will benefit 240,000 individuals directly and 333,540 individuals indirectly, 50% of all the beneficiaries both direct and indirect will be women and at least 15% youth below 35 years of age (the

percentage of youth in Burundi is high and thus the project is likely to reach a higher percentage of youth). The number of direct beneficiaries was finalised by targeting to rehabilitate 25,000 hectares of farmland in the upper and mid catchment areas of the Imbo and Moso regions. With an average plot size of 0.5 hectares per household, then 50,000 households will directly benefit from the project[2]. The average household size in Burundi according to the World Bank is 4.8 individuals, therefore the total number of direct beneficiaries will be 240,000. The indirect beneficiaries will be the downstream farmers who already participated in the first phase of this project who totalled 333,540 individuals, whose livelihoods indirectly benefit from the project investments. Therefore the total number of beneficiaries for GCF resources will be 573,540, which represent 5% of the total population (11.6 million).

The project has three major components, which are outlined below. The specific targets for each component are presented in the log frame (Annex 2a).

Component 1: Improvement of soil and water management through the adoption of best practices in agro-ecosystem management by land users.

This component will support small-holder farmers selected on the basis of vulnerability categorization[1] and gender sensitivity to adopt practices that will improve soil and water conservation to address the risk of increased soil erosion and land degradation through the following outputs and activities:

Output 1.1: Increased adoption of sustainable soil and water management practices (Barriers 1a, 2a, 3a, 3b, 4a & 4b).

This output will develop approaches and initiatives to facilitate the adoption of sustainable land management practices by small-holder farmers in the upper and mid catchment areas of the Imbo and Moso basins, eventually contributing to boost agricultural productivity. The main activities will include:

- i. Generating localized evidence on the best suited agro-ecosystem management practices for the various micro-catchments within the basin (i.e. polycultures, agroforestry, integrated soil fertility management, water conservation and harvesting). This will be supported by fieldwork and risk mapping combined with basin-wide high-resolution hydrological modelling to identify areas with high erosion risk. The hydrological model will be used to assess the impacts of high-intensity rainfall and evaluate scenarios of different management practices. These scenarios will help quantify downstream impacts on flood risk, sediment transport, siltation and water availability;
- ii. Co-development, with both upstream and downstream smallholders, of landscape management plans that will be used to inform soil and water practices on the basis of models of erosion risks under future climate scenarios;
- iii. Support local farmers and communities to effectively implement the landscape management plans through financing prioritised activities. This will include trainings by experts as part of FFS and peer-to-peer demonstration (learning by doing).

The ownership and the governance of the plans rests with the community Water User Associations (WUAs) under the monitoring of Provincial Directorate for Environment Agriculture and Livestock. WUAs and CCDs

are governed by their respective statutes and internal regulations, which also define the modalities of collaboration between them. Once established and legalized, as beneficiaries of project support and services to make them more effective, they agree to the principles of engagement and participation in the project.

Output 1.2: Increased on-farm rain water harvesting at household level (Barriers 1a, 1b, 2a, 2b & 4a).

This output will increase rainwater harvesting capacity of local farmers - as an economically viable and climate resilient solution. If harvested and stored, the water collected from rainfalls can be used to address the water deficit caused by drought periods and groundwater depletion. It can then be redirected to reservoirs, thus contrasting surface runoff and contributing to reducing water and soil loss across the catchments. The major activities will be:

- i. Supporting farmers acquire rainwater harvesting facilities, mainly gutters and water tanks for diversion of water to surrounding gardens and storage at the household level, and micro-catchments as well as contour bunds and water pans on farm;
- ii. Building the capacity of local artisans to offer technical support to farmers in the manufacturing, installation and maintenance of these household systems and the capacity of farmers to construct and maintain the on-farm systems. Trainings will be delivered by project staff and water experts (e.g. UNESCO), to local artisans by demonstration as well trainings on water efficiency, rainwater harvesting and land management practices to reduce surface runoff production.

CCDCs are responsible for general development issues of the hill (or commune) and inform the participatory targeting of beneficiaries. The WUAs are responsible for the i) development of marshlands (irrigation, water management, agricultural inputs, cultivation techniques, etc.); ii) the maintenance of hydro-agricultural works and iii) fundraising and management of water user fees. The two structures collaborate closely in raising the awareness of the marshland users. The cooperatives are an apex of AUMs which provide various services to members including i) access to input, access to loans from MFIs, ii) management of the storage facilities, iii) bulk purchase, processing and marketing of production. PIPARV-B will ensure i) the structuring and capacity building of CCDCs and AUMs, ii) procurement of storage facility. The Communes (local authorities) provide land to Cooperatives for their activities and collaborate in the sensitization of WUAs particularly for maintenance work, prohibition of livestock raving in marshes, etc. It is expected that the AUMs would gradually become autonomous at least for small repairs and awareness raising sessions. The project does not provide direct funding to the CCDCs, which are not expected to manage funds.

The targeting approach will be based on two main criteria - land tenure (owner or tenants) and possession of agricultural assets such as livestock used on the land. The process will be conducted as follows: (i) update of the existing baseline situation of the project area (ii) organization of participatory general assemblies to define the typologies of households by assets (land and animals); (iii) update of a survey on hills and marshlands (iv) inception meetings with the provincial and communal administration and communal community development committees (CCDCs) to validate in a participatory manner the hills that will be targeted by the project, (v) visits to potential beneficiary households, (vi) validation of the lists by the CCDCs and the technical services and administration, (vii) validation of the lists of beneficiaries by the committees in general assembly. Priority is given to landless farmers or farmers with 0.5ha without livestock. These farmers belong to category C1 and

C2a. Vulnerability is determined in terms of asset ownership, household size, gender of household head and social capital such as membership of savings groups and other networks or support groups.

For the collective facilities the project will use the national manuals for the design, maintenance and management of hydro-agricultural facilities. Financing will be through community funds under the Water User Associations and CCDCs. Youth as part of their engagement will ensure the O&M. The procurement of the rain water harvesting facilities will be done through the Project Management Unit that has the day to day operations oversight. This arrangement has the advantage of economies of scale. The facilities will then be transferred to the final beneficiaries. Civil works are envisaged, which involve constructing a base for the water harvesting tanks.

Output 1.3: Increased incentives for the development of “green” Micro, Small and Medium Enterprises that spur water and soil conservation action (Barriers 1a, 2a, 2b, 3a, 3b, 4a & 4b).

This output will support the development of community and personal initiatives downstream that will ensure the project gains are sustained even beyond the project lifetime and that will increase the holistic resilience of the livelihoods of the beneficiaries along the target value chains, once the climate resilience of the irrigation schemes upstream is ensured. Such initiatives will include business development support for alternative, clean and environmentally friendly cooking fuels and cook stoves for the local population at an affordable price. Women, who form the largest proportion involved in agricultural production, and young people who are particularly open to innovations will be targeted (60% of the overall target). The main activities will include:

i. Linking local innovators with “green business” incubation facilities (i.e. SPARK’s Agri-Business Incubation Network[3], Burundi Business Incubator (BBIN) under the Business Incubators for African Women Entrepreneurs (BIAWE) - COMESA; Social Impact Incubator; the Incubator for Integration and Development in East Africa - IIDEA under the East Africa Community) within the region to reward the most suitable innovations, train farmers on business skill development and on how to better access finance, and incentivize the broader adoption of sustainable agricultural practices. The incubators and financial partners will be required to incorporate financial literacy training and access to financial services in the value offered to the project;

ii. Supporting farmers in improving on their post-harvest handling of produce from the PNSADR-IM value chains, other than rice - maize, certified peanut seeds, certified soybean seeds, tomato, hybrid maize and fruit plants, e.g. sun drying and improving storage, thus enhancing overall agricultural productivity. This will also incentivize the creation of alternative businesses along the target value chains, with a focus on the supply of raw materials that are derived from agricultural waste and the marketing of briquettes;

iii. Building on PNSADRIM/PIPARVB, the project will promote women empowerment activities, functional adult literacy which is very beneficial for the performance of the credit solidarity groups, the main source of funding for women who usually do not have the collateral to access MFIs. Women’s empowerment is mainly on financial literacy and business skills development. There is no on lending through the project but linkages will be provided to MFIs for improved financial access and investments.

The project will benefit from the promotion of green economy under another IFAD financed project to Support Agricultural and Rural Financial Inclusion in Burundi (PAIFAR-B). PAIFAR-B is currently working with

five MFIs that have national coverage to explore green business opportunities among which is the promotion of cook stoves. The project activities and linkages with PAIFAR-B will expand the reach of the MFIs. PAIFAR-B is the interface between the MFIs and the target groups of the other IFAD funded projects (PIPARV-B, PRODEFI, PNSADR-IM). Existing MoUs define roles and responsibilities between these technical projects and PAIFAR-B, which is solely dealing with inclusive rural finance.

The business incubation facilities will be managed by an already established network and overseen by the project in terms of reporting and monitoring of activities. The project will sign a result-based contract with selected incubators such as BBIN, YAIN and others following competitive process through a call for proposals as this a common practice in IFAD funded projects. Both BBIN and YAIN have robust governance structures, respective comparative advantage and have developed partnership and working relationships. GCF resources will finance the selection of a consultant to provide incubation support services to selected businesses. The eligibility criteria for the consultant will include presence in the country with regional linkages; successful experiences in similar assignments/contracts; a minimum number of years of experience among others.

Both networks have established partnership with National Employment and Manpower Observatory and with the regional Employment and Manpower Observatory to develop targeted programmes for youth. The selected network (through open tender) will propose the criteria for selection and eligibility of innovative businesses that will be approved by the Project Management Unit and IFAD (e.g. challenge fund type of call for proposals). The incubation procedures will be agreed with the selected network and monitored through reporting, visits and mentoring from regional consultants. For ease of reporting, the GCF resources will not be blended with existing initiatives.

Component 2: Capacity building of actors at all levels on best agro-ecosystem management practices for enhanced soil and water conservation.

This component will improve the knowledge base for locally effective soil and water conservation practices that can be replicated in similar ecosystems. The generation and dissemination of this knowledge will be through readily accessible mediums such as farmer field schools (FFS), videos, best practice magazines and radio programmes among others. In addition, farmers' access to information on best practices in soil and water management through currently available agricultural extension services will be enhanced. The component has two major outputs:

Output 2.1: Building capacity of actors in improved agro-ecosystem management for enhanced soil and water conservation (Barriers 1a & 3b).

This output will train technical service providers, i.e. extension officers and lead farmers, on the best soil and water conservation practices to facilitate the use of peer-to-peer learning models through the FFS approach. The training will include climate risk and land management options to increase their knowledge base and adoption potential, and use of information (e.g. satellite images and risk maps) for identifying and guiding interventions. The local extension officers will undergo a refresher training on best practices in soil and water conservation and on how to engage farmers for impact. The main activities are:

- i. Training of extension officers and lead farmers in soil and water conservation practices;

- ii. Sensitisation of lead farmers in peer to peer learning techniques.

Output 2.2: Establishment and operationalisation of FFS (Barriers 1a, 2b, 3b, 4a & 4b).

This output will establish FFS to share knowledge and engender peer learning on best practices on soil and water conservation. These field schools will be established on farms where the owners have excelled in soil and water conservation. Incentives, such as provision of agricultural inputs, will be provided. The major activities will be:

- i. Recruiting farmers whose farm will serve as FFS;
- ii. Training farmers on the best soil and water conservation practices and supporting them to establish these structures within their farms.

The criteria for beneficiaries' selection for both Component 1 and 2 include gender and age disaggregation as well as specific categories of the smallholders (which focus on vulnerability and asset ownership), with the objective being to reach the following: female (18-35 yrs) 30% (over 35 yrs) 20% males (18-35) 30% (over 35 yrs) 20%. Sixty percent of the beneficiaries will be Category 1: households without land and livestock (using communal lands) and Category 2a: households with limited access to land (< 0.5 ha) and no livestock; 30% will be Category 2b: households with limited access to land (between 0.5-1ha) and no livestock and; 10% from Category 3: poor households with access to land (1-2 ha) and a few short-cycle animals and small ruminants but insufficient to meet their primary needs. Priority will be given to the most vulnerable community members identified through registers as a direct targeting criteria. The additional criteria will include geographic targeting i.e. those residing in the project location, self targeting, i.e. those willing to participate in the project activities and adhere to the principles of the participation.

Component 3: Development of an enabling environment for water and soil conservation.

This component will facilitate the review of current policies and by-laws on soil and water conservation in order to safeguard the upper and mid catchments of the two basins. Better alignment of the National agriculture plan and the sector investment plan with the NDC and the NAP will be ensured. A sustainable finance round table will be organised to advocate for the funding of the environment/climate related activities of the action plan. The component has one major output:

Output 3.1: Enabling policy and legislative framework for soil and water conservation established (Barriers 3a, 3b & 4a).

This output will identify current gaps in the existing soil and water conservation policies/by-laws and make recommendations to improve them. Possible barriers to the implementation of the policies will be evaluated and appropriate recommendations made in view of an operationalization of legislative reforms and policy change. The output will have two major activities, which are:

- i. Review of current policies and by-laws to identify gaps, generate evidence and make recommendations on how to improve them based on climate risk analyses and policy developments in the region;

ii. Hold stakeholder validation workshops and policy round tables and promote participatory irrigation management transfer mechanisms, for instance through the establishment of WUAs, for the selection of the most suitable strategy based on the experience of other development partners on the ground (e.g.GIZ).

Policy dialogues include beneficiary representatives and representatives of local and national government structures. In Burundi, the provincial consultation framework is chaired by the Provincial Governor. The documented evidence will make a case of best practices that become policy through the hill (colline) management committees and enforced through provincial structures once accepted at local levels. The overall policy sets will then be captured and proposed for national legislation where need be. Since project units created for IFAD projects are primarily Government-run and supervised by the line minister, the process is inclusive, accepted/transparent and validated at every step. Several provisions of Burundi's investment code and tax law encourage the private sector to invest in agricultural and non-agricultural activities. These include: (i) a one-stop desk to simplify business procedures and access to information, (ii) taxes and duties exemption, (iii) freedom of establishment and capital investment, (iv) recognition and guarantee of property rights, (v) tax incentives for certified investors, including: (a) exemption from customs duties on raw materials and equipment, (b) various business incentives. Therefore, it is expected that the improvement in the operationalisation of the legislative framework would be an incentive for private sector involvement.

This project will be implemented in the COVID 19 post recovery period. Therefore, the response strategy developed for IFAD financed projects in Burundi will apply. The strategy will cover the health and hygiene protocol adherence and dissemination of messages for prevention. Job creation especially for the youth is already targeted in the portfolio and funds will be repurposed for the COVID-19 context, with this project falling under that strategy, and the business incubation and other income generating activities will contribute to the response.

[1] The project will focus mainly on C1 and C2a categories who are landless, without title and thus using communal land (C1) or have 0.5ha land with no livestock (C2a).

[2] Ndayiragije et al., 2017.

[3] SPARK's Agri-Business Incubation Network: <https://spark.ngo/programme/agri-business-incubation-network-abin/>.

B.3. Implementation / institutional arrangements (max. 750 words)

Figure 3: Project management diagram (see Annex 13 for figure)

The Executing Entity is the Republic of Burundi (RoB) through its Ministry of Finance and its Ministry of Environment, Agriculture and Livestock. The proposed project activities cut across the mandate of four state departments, Agriculture, Environment, Water and Trade & Industrialization. A management structure that brings together the various experts and stakeholders from these departments will be formed.

A Financial Agreement will be signed between IFAD and the GoB through Ministry of Finance. A designated account will be opened to receive the GCF funds and an operations account will be opened for day to day transactions in BIF. The AE has previously undertaken an assessment of the fiduciary and financial management capacity of the EE through the projects implemented. PIPARV-B and PNSADR-IM joint management team have the financial and fiduciary responsibilities of the project and the EE has the oversight

role. This arrangement is working well as the different parties have the capacity to undertake their respective roles.

At the national level, the project will be guided by, have oversight and receive policy directions where necessary from the National Project Steering Committee (NPSC), which will be the same as that for the PIPARV-B project and meet twice a year. The NPSC will be chaired by the Minister of Agriculture and its members constituted from various state departments within the ministries of: Agriculture, Environment and Livestock; Extension, Trade & Industry; Water. The committee will also have co-opted members representing the regional governors from the six project provinces and selected private sectors players.

The NPSC will recruit the soil and water engineer for the National Project Management Unit (NPMU). This committee will also approve work plans and budget for the project.

The NPMU, in the Ministry of Environment, Agriculture and Livestock, will undertake overall coordination, the administrative and financial management as well as the M&E entrusted to PNSADR-IM/PIPARV-B joint team. The NPMU will be headed by a national coordinator, who will be competitively recruited by the NPSC. Additional staff solely dedicated to the SAP project will be recruited, such as a soil and water engineer at central level and two regional water and soil engineers following procedures for project staff recruitment. The Ministry of Environment, Agriculture and Livestock will mandate the PIPARV-B coordinator to handle the recruitment. IFAD as the AE will maintain oversight of the different functions during project implementation.

The NPMU will be the Implementing Entity for the project and it will be in charge of recruiting project personnel, consultants and other service providers. In addition, it will be in charge of all contractual obligations of the project by contracting and subcontracting various service providers for the purpose of project implementation. The unit will also monitor project implementation and the achievement of the project outcomes/outputs and ensure the efficient use of project funds.

The NPMU will implement the project through the regional governments (who will be project partners); however, the NPMU will be represented in the two focus regions (Imbo and Moso) by soil and water engineers who will work closely with the regional governments to deliver the project activities. The NPMU will coordinate activities on the ground through the regional soil and water experts and the regional agricultural extension officers.

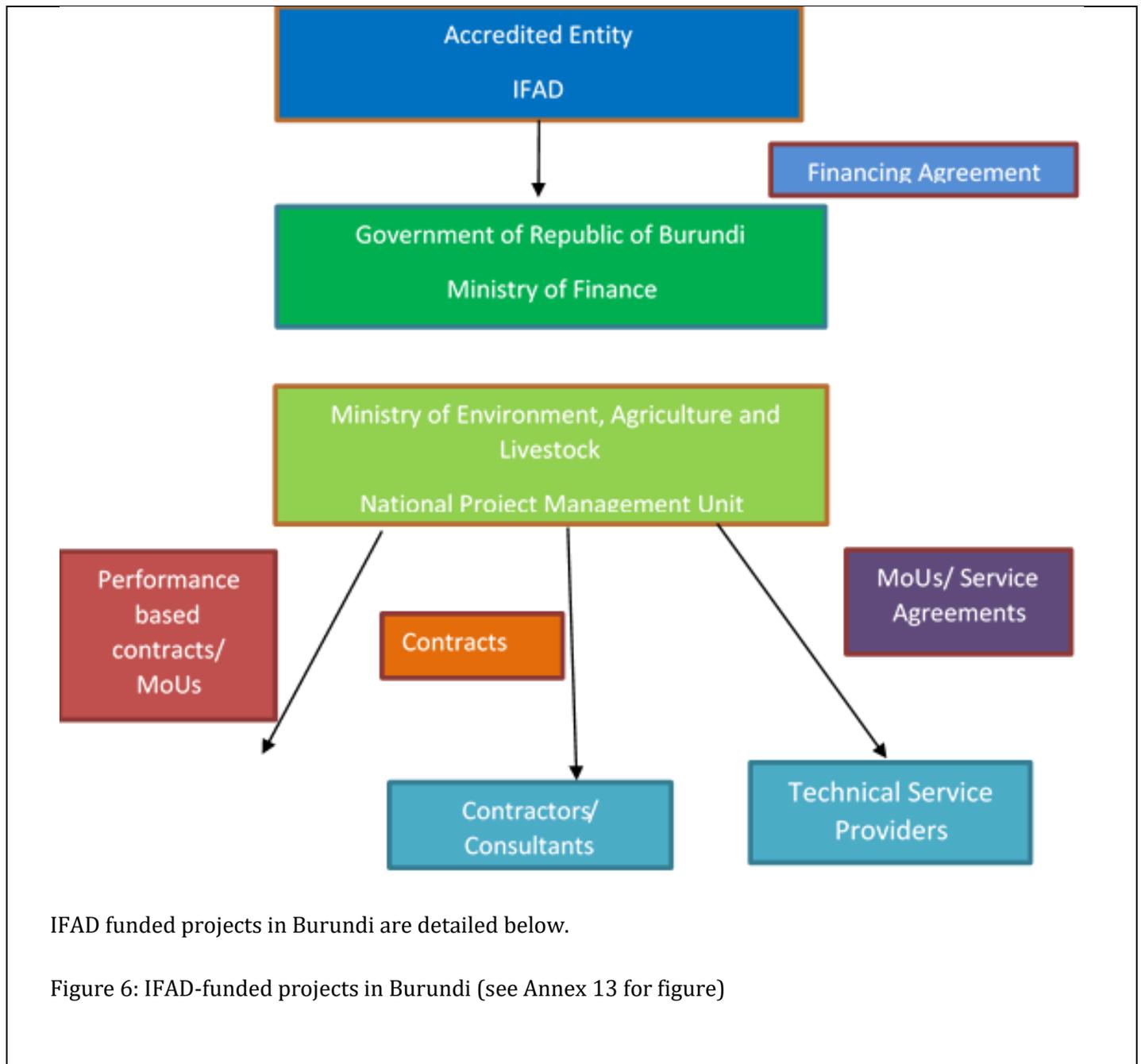
Implementing Partners: for the various specialized activities of the project, such as facilitating community training and establishment of tree nurseries, the NPMU will select local implementing partners. The selection of service providers and implementing partners is done competitively based on a request for proposals. The primary criteria is the distinctive competence and experience of a partner in e.g community development work (including participatory targeting) or value chain and access to markets. All IFAD-funded projects have long-standing partnership with very experienced service providers (which serve all projects). The projects also sign cooperation agreements with public services such as the communal offices of the Ministry of Environment, Agriculture and Livestock (MINEAGRIE). These agreements are results based and the performance is assessed yearly before the renewal of contract or cooperation agreements. The Agreements/ MoUs are submitted to IFAD for no-objection prior to signature.

These partners will, for the most part, be community-based organisations that have demonstrable experience in the subject matter and are run by local women and youth. For more specialized services, such as trainings and business incubation, implementing partners will be sought on the open market through a rigorous competitive and transparent public process. Given the broad thematic spectrum of Component 1's activities and, particularly, the large geographic spread of the target groups, it is likely that corresponding tasks will be distributed among several partners to be engaged on a case-to-case basis. Some of these are active in ongoing IFAD operations and engaging them requires adjustments and partial reconstitution. Some activities are to be implemented by the Africa Sustainability Centre (ASCENT), a foundation registered in Kenya and Mali and appointed by the GoB as a technical advisor for climate finance and sustainable development. However, ASCENT will work under the NPMU for efficiency and ease of coordination and will be engaged through procurement contracts. These will stipulate specific deliverables with timelines and cost centres for clarity and efficiency of coordination. These technical partners will be guided by IFAD standards and policies with the same reporting, monitoring and evaluation robustness as the EE even though they are supervised by the NPMU. Local actors (beneficiaries, local authorities, various associations, CCDCs) will inform the process of selection and/validation of beneficiaries, in the Annual Work Plan and Budget, in the Operations and Maintenance, in Farmer Field Schools etc.

Figure 4: Table on implementation partners (see Annex 13 for figure)

The eligibility criteria for selecting partners includes screening and due diligence by the procurement committee. This is done through open tender for the services. Preference is given to organisations that have been working with existing projects and have a proven track record. Contracts/MOU will be developed between the PMU and the selected services providers.

Figure 5: Typologies of contracts to be signed (see Annex 13 for figure)



IFAD funded projects in Burundi are detailed below.

Figure 6: IFAD-funded projects in Burundi (see Annex 13 for figure)

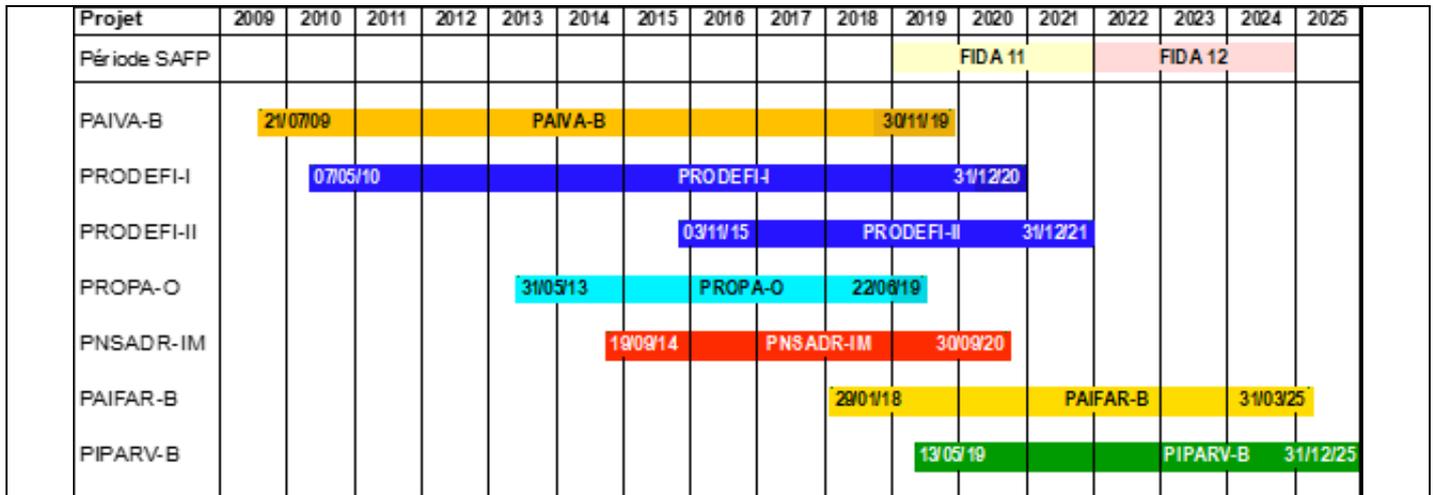


Figure 7: Financial flows for the project (see Annex 13 for figure)

Financial flows will be as illustrated in the figure above. The financing agreement will be signed between the GCF and IFAD. While IFAD undertakes the role and responsibility of the Accredited Entity as per the agreement with GCF, the timely and accurate preparation of detailed semi-annual financial reports as per the agreed budget format is a responsibility of the NPMU with the oversight of the AE. The AE will submit the reports to GCF as outlined in the AMA.

The NPMU will act as the Implementing Entity and will report directly to IFAD. The NPMU will hold all the contractual agreements with other contractors or sub-contracts, and it will adapt the result-based financing framework wherever possible to ensure project outputs are achieved on time and within budget. The NPMU will be in charge of paying all the service providers and sub-contractors as per the financing agreement between the two parties. The NPMU will also ensure that all project activities are completed 6 months to the project closure, and a thorough monitoring and evaluation is conducted to consolidate lessons learnt and report to IFAD and the government as need may be.

C. FINANCING INFORMATION				
C.1. Total financing				
(a) Requested GCF funding (i + ii + iii + iv + v + vi)	9,994,500		USD	
GCF Financial Instrument	Amount	Currency	Tenor	Pricing
(i) Senior loans				

(ii)	Subordinated loans					
(iii)	Equity					
(iv)	Guarantees					
(v)	Reimbursable grants					
(vi)	Grants	9,994,500		USD		
(b) Co-financing information		Total amount			Currency	
		21,727,000			USD	
Name of institution	Financial instrument	Amount	Currency	Tenor	Pricing	Seniority
IFAD	Grants	21,727,000	usd			
(c) Total investment (c) = (a)+(b)		Amount			Currency	
		31,721,500			USD	
(d) Co-financing ratio (d) = (b)/(a)	2.17					
(e) Other financing arrangements for the project/programme (max ½ page)						

C.2. Financing by component

Please provide an estimate of the cost per component (as outlined in Section B.2. above) and disaggregate by sources of financing. This table should match the one presented in the term sheet and the names (in the rows) should match those presented in the logic framework in section D below.

Component	Output	Indicative cost (USD)	GCF financing		Co-financing			
			Amount (USD)	Financial Instrument	Type	Amount (USD)	Financial Instrument	Name of Institutions
Component 2. Capacity building of actors at all levels on best agro-ecosystem management practices for enhanced soil and water conservation	Output 2.1. Building capacity of actors in improved agro-ecosystem management for enhanced soil and water conservation Output 2.2. Establishment and operationalisation of FFS	5,788,000	199,000	Grants		5,589,000	Grants	

Component 3. Development of an enabling environment for water and soil conservation	Output 3.1. Enabling policy and legislative framework for soil and water conservation established	1,259,500	22,500	Grants		1,237,000	Grants	
Program Management		3,940,000	480,000	Grants		3,460,000	Grants	
Component 1. Improvement of soil and water management through the adoption of best practices in agro-ecosystem management by land users	Output 1.1. Increased adoption of sustainable soil and water management practices Output 1.2. Increased on-farm rainwater harvesting at household level Output 1.3. Increased incentives for the development of "green" Micro, Small and Medium Enterprises that spur water and soil conservation action	20,734,000	9,293,000	Grants		11,441,000	Grants	
Indicative total cost (USD)		31,721,500	9,994,500			21,727,000		

C.2.1 Financing structure (if applicable, mandatory for private sector proposal (max.300 words))

C.3 Capacity Building and Technology development/transfer	
<i>If the project/programme is envisaged to support <u>capacity building and technology development/transfer</u>, please specify the total requested GCF amount for these activities respectively in this section.</i>	
C.3.1 Capacity building	Amount: 437,500 USD
C.3.2. Technology development	Amount: USD
C.4. Justification for GCF funding request (max. 500 words)	
<p>Burundi is one of the poorest states in the world and, as such, faces several challenges and competing investment priorities. In 2018, Burundi recorded a government budget deficit equal to 8.80% of the country's Gross Domestic Product (GDP) and in 2019 it faced a debt-to-GDP ratio of 63.5%.[1] The country's external accounts remain vulnerable, with a very sharp increase in the current account deficit, estimated at 14.3% of GDP in 2018 compared to 11.3% in 2017. This deterioration is linked to the widening trade deficit, combined with the decline in international aid transfers to NGOs. In 2019, the World Bank Doing Business ranked Burundi 166th out of 190 countries, and specifically 176th in terms of access to credit.[2] Therefore, attracting private capital in the country for innovative financing is very challenging and would require significant expectation of profit to mitigate the perceived risk, such high profitability being incompatible with the target beneficiaries. As a result, investments to support communities in adopting on-farm soil and water conservation practices may not get financial allocation in the near term as there are more pressing needs for the government to address. In addition, the country previously acquired a financial facility in the form of a loan (34.2% of USD 57 million on highly concessional terms) to rehabilitate the irrigation schemes in the Imbo and Moso region. Burundi requests an all-grant finance from GCF because the people in these watersheds are highly vulnerable to climate change, particularly frequent flooding that often causes displacement due to homestead inundation, frequent crop failure and loss of human life. The GoB often has to obtain external support when such events occur. The livelihoods of these targeted communities almost wholly depend on subsistence agriculture and agriculture wage labour, both of which highly sensitive to flooding. This is aggravated by the second highest population densities in SSA which constrains availability of land for farming. As such, the investments required upstream to climate proof the infrastructure developed under the irrigation scheme rehabilitation will not be available in the near future, which will aggravate the climate vulnerabilities of the communities depending on these schemes. The precarious economic situation of Burundi entails that the implementation of the NDC is conditioned by the availability of external financial support. For these reasons, the government of Burundi is requesting grant funding from the GCF.</p> <p>The GCF investment will trigger several benefits linked to improving the country's overall climate change preparedness and to increasing the resilience of vulnerable households within the two regions. It will also act as a catalyst to stimulate further community investments in better agro-ecological practices in the upper and mid-catchment areas. This will be stimulated by the economic benefits that the participating farmers will accrue from adopting sustainable land management practices; increased income will act as an incentive for other farmers to make the same transition. In addition to supporting farmers improve on their water and soil conservation, the project will also address some of the challenges driving deforestation in the steep slopes. This will mainly be achieved through supporting local businesses that provide alternative clean cooking fuels and efficient cook stoves. It is envisioned that, by promoting these businesses to have a wider reach, their impact on environmental sustainability will be experienced even beyond the project's focus areas. In addition, the technology promoted by these small local businesses will be locally acceptable and will lead to a new way of doing things, for instance with regards to household energy demand, and will generate health co-benefits</p>	

resulting from reduced indoor pollution due to reduced smoke from traditional stoves. In addition to promoting efficient cooking alternatives, the project will also ensure that vegetation grown as part of the soil conservation measures will have multiple uses within the households. Such vegetation will include fruit trees and Napier grass which also acts as animal feed among others. This will serve as an additional incentive to adopt the water and soil conservation practices and, in-turn, will increase the household economic outcome which is a major driver in enhancing climate resilience. The revenues generated by these practices could be channelled through payments for ecosystem services (PES), thus enhancing the provision of agro-ecosystem and forest ecosystem goods and services and providing a solution to the “tragedy of the commons” trap. PES will be further explored as part of the project for the downstream users and livestock owners to pay those upstream undertaking the soil and water conservation activities. In this scenario, the GCF investment will demonstrate the economic co-benefits of soil and water conservation, which will stimulate wider adoption of such sustainable practices.

The GCF resources will also promote the shift in long term investment for the natural resource management activities that smallholders often lack the resources for. The smallholders prioritise improved inputs for their agricultural practices based on the more short term gains they are able to generate. The improved productivity, as a result of improved natural resources management, is less evident and, with the longer term perspective required for this investment, smallholders tend to be less convinced. The lack of prioritisation of these activities is illustrated in the social and financial barriers identified in section B1, which the GCF resources will address.

[1] <https://tradingeconomics.com/burundi/government-budget>

[2] <https://www.doingbusiness.org/en/rankings#>

C.5. Exit strategy and sustainability (max. 300 words)

The project's institutional positioning within the Ministry of Finance and the Ministry of Environment, Agriculture and Livestock will ensure that the outcomes are tightly connected to the government's strategies and well integrated into the country's policy framework, in such a way that the project's successes will be fully internalised by the government post-project.

One of the strategies for sustainability is the establishment of farmer demonstration centres on the farms of participating farmers, who have shown exceptional skill and desire to practice and transfer the knowledge to their peers under the PNSADR-IM project. Farmers hosting the demonstration farms will undergo thorough training to ensure that they understand the practices well and transfer this knowledge to their peers, building a knowledge sharing loop that will be self-sustaining beyond the project's lifetime. The development of green micro, small and medium enterprises will also ensure the sustainability of the soil and conservation activities and will provide the beneficiaries with the tools to build upon the project's interventions and contribute to a green economy paradigm shift, thus revolutionising the business environment.

Micro finance institutions are more and more inclined to finance local business ventures especially if they are assured that the clients are being technically supported. IFAD has an inclusive rural finance which facilitates access to finance to many farmers and businesses in collaboration with technical projects such as PNSADRIM. YAIN is a youth micro-enterprise network that has obtained credit from MFIs to organize training

for young entrepreneurs and has facilitated their access to loans from the same MFIs. PAIFAR-B is currently developing a MoU with YAIN to upscale youth access to micro projects.

The project will engage extension officers to provide support for policy review at national and regional levels to ensure that soil and water conservation is well regulated and that climate change considerations are mainstreamed within their programme of work. The project will review the policy and regulatory framework to support soil and water conservation measures and reach the relevant scale to ensure impact. Furthermore, all the practices to be promoted will have additional co-benefits for the farmers, such as increased and long-lasting returns from the sale of fruits or animal feed, which can then be reinvested in the creation of the enabling conditions for sustainable development. The HHs targeted with water harvesting assets will be equipped with the knowledge and skills to maintain the assets. Technicians trained for the maintenance will be drawn from within the communities so that they are readily available. The project will identify private sector suppliers to ensure lasting supply and expansion of assets for water harvesting infrastructure and water tanks within the communities of beneficiaries. Community financing mechanisms will be encouraged to develop credit products related to water harvesting.

Private sector engagement, specifically in promoting alternative cooking fuels and clean cook stoves, is also a major sustainability consideration under this project. Considerable growth in the demand for cleaner burning briquettes made from agricultural waste is foreseen. This is already being carried out by youth groups in the area at a very small scale. With increased production, the market for the briquettes is anticipated to grow beyond the project areas. This market will ensure 1) there are alternative businesses that the youth can engage in, along the value chain e.g. supply of the raw materials and marketing the briquettes; and 2) the raw materials will be derived from agricultural waste which is currently burned in open fires to clear the farms. These small-scale technologies will be built using local materials and local expertise, thus ensuring the investment's long-term sustainability and replicability. These businesses will be supported through business incubation services and better access to the financial services offered by MFIs, with the aim of turning such innovations into viable local business ventures. MFIs are part of the consultation and stakeholders in the project as their reach will be increased as a result of the activities. The private sector will also play a catalytic role in the financing of ecosystem services, thus redirecting the focus from farmers' short-term goals to the wider landscape.

Lessons learned from previous projects shown that cook stoves have multiples benefits among which are i) income generating activities for poor households (they have been promoted along with nutrition activities), ii) the inclusion of marginalized groups such as Batwas in IGAs, iii) improve health and time savings for women/youth and iv) preserve the environment by reducing the amount of wood used for cooking and thus the rate of deforestation. Compared to traditional stoves, improved stoves consume one third of the amount of wood. Improved cook stoves use wood from woodlots and natural regeneration. The woodlots will be part of the soil and water conservation options promoted by the project. The project prevents stacking by providing the improved cook stoves as replacements or in exchange of the old/traditional stoves.

The landscape-based approach to reduce surface runoff and subsequent soil erosion would generate positive externalities for people throughout the catchment. However, these benefits are not direct and face the "tragedy of the commons" trap, as farmers are risk adverse and do not invest in land and other improvements unless the economic and livelihood benefits are clear. For this reason, most investments by farmers tend to

focus on short term goals within the farmers boundaries with minimal attention to the wider landscape. In this scenario, investments by GCF will demonstrate the economic and productivity co-benefits of soil and water conservation, which will stimulate wider adoption of such sustainable practices. The benefits will be evident in the improved productivity of the households and thus improved livelihoods and food and nutrition security at household level.

The project will abide with the joint exit strategy of IFAD funded projects, which focuses on institutional and community level capacity building to provide the knowledge and establishment or strengthening of systems to sustain the investments and transfer of assets. The institutional capacity building includes training of technical staff, upgrading their skills as required and establishment of systems. In the case of this project the extension service agents will have the required skills to provide the required service and advise to the smallholders. The Farmer Field Schools will provide a platform for the knowledge sharing and these, once established by the project, can continue to be operated by the smallholders. At the local level the knowledge development under this project includes maintenance for any installed infrastructure, the income generation activities that can provide the capacity for smallholders to pay for services and the financial literacy to manage their incomes. The exit strategy also takes cognisance of the need for financial access particularly for the smallholders. Therefore, the systems established include linkages to savings and credit groups at the local level, financial service providers and reliable markets and information.

C.6. Financial management/procurement (max. 300 words)

The financial management and procurement within the project will be guided by IFAD's financial regulations, rules and practices, as well as IFAD's Program Implementation Manual (PIM). Semi-annual and annual project reports will be prepared by the PMU. Quarterly progress reports will also be prepared by the project's implementing partners and submitted by the PMU to IFAD to ensure continuous monitoring of programme activities and identify challenges to adopt necessary corrective measures in due time. Financial reports will be submitted to IFAD in the format and time necessary for IFAD to comply with GCF reporting requirements.

Financial reporting: In terms of financial monitoring, the project team will provide IFAD with certified semi-annual financial reports and with an annual audit of the financial statements relating to the status of funds according to the established GCF procedures.

Audit: Audits will be undertaken in line with the IFAD Guidelines for Financial Reporting and Auditing for the programme. The annual project audit will include compliance with GCF requirements. The project will track expenditures both by component-output and by expenditure category as per the budget. IFAD will ensure that all transactions are recorded in an accounting software in accordance with IPSAS cash basis of accounting. The Additional Financing will be audited annually as part of the overall program by independent auditors in accordance with international audit standards and IFAD audit guidelines.

Procurement: Corruption in procurement risks will be mitigated by putting emphasis on: (i) capacity-building of procurement staff, and (ii) regular monitoring, oversight, supervision, training and sanctions. New staff will also be recruited competitively. Procurement plans will be prepared annually and aligned on AWP.

Governance: A National Steering committee will oversee the allocation of the funds as agreed with the GCF. The PMU will continue to ensure the effective and efficient implementation of both IFAD and GCF activities by service providers, as well as supervise programme activities, provide capacity-building and conduct monitoring and evaluation activities.

The project will follow IFAD's policies on anti-money laundering, corruption and fraud, as included in the general conditions of the Financing Agreement. These aspects are closely monitored through regular supervisions and reporting.

IFAD's system and procedures, which include the approval of Annual Work Plan and Budgets and procurement plans, the no objection for each contract above certain thresholds, yearly supervision missions, the "handover" process of all goods and infrastructures, the audits and the review process of withdrawing application etc., ensure that misappropriation is minimized.

D. LOGIC FRAMEWORK AND MONITORING, REPORTING AND EVALUATION

This section refers to the project/programme's logic framework in accordance with the GCF's [Performance Measurement Framework](#) under the [Results Management Framework](#) to which the project/programme contributes as a whole, including in respect of any co-financing. This is different from the project/programme-level log frame (as there may be other impact measures for example that go beyond those defined by the GCF).

A project-level logical framework, with specific indicators, baselines and targets, means of verification and assumptions should be provided as part of Annex 2.

D.1. Paradigm shift objectives (max.200 words)

<p>Increased climate-resilient sustainable development</p>	<p>2.1 Percentage of food-secure households (reduced food gaps). The first phase of the proposed project which was funded by IFAD and the Government of Burundi rehabilitated 2,470 hectares of irrigation schemes within Imbo and Moso regions. These schemes currently support 333,540 beneficiaries who are allocated plots, as a means of enhancing their food security. Therefore, this project will safeguard investments that support approximately 3% of Burundi's population in securing their food source. The farmers upstream will also have improved food and nutrition security as a result of the soil and water conservation techniques for improved productivity. 3.1. Value of infrastructure made more resilient to rapid-onset events (e.g. floods, storm surges, heat-waves) and slow onset-processes. Phase one of the project invested more than USD 57 million to rehabilitate the irrigation schemes covering 2,470 hectares that had been destroyed by increased siltation. In addition to this rehabilitation investment, this project protects the entire investment pipeline including the investments made each year by farmers in their respective fields, which can be approximated to be USD 1,070/ha (Ohen and Ajah, 2015). Therefore, the total investment amount to be safeguarded by this project against increased siltation as a result of soil erosion upstream during heavy down pours will be approximately USD 57 million (based on the PNSADR-IM investments).</p>
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D.2. Impacts measured by GCF indicators

Select the appropriate impact for the project/programme. Note that more than one indicator may be selected per expected impact result. Add results as appropriate.

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
A2.0 Increased resilience of health and well-being, and food and water security	A2.2 Number of food secure households (in areas/periods at risk of climate change impacts)	Interim Evaluation Reports; Final Evaluation Reports; District Development and Economic Reports	0	80,000 vulnerable individuals (50% women and 15% youth)	240,000 vulnerable individuals (50% women and 15% youth)	The infrastructure developed will be used to support food production
A2.0 Increased resilience of health and well-being, and food and water security	A2.3 Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses	Interim Evaluation Reports; Final Evaluation Reports; District Development and Economic Reports	0	1,700 households (50% women and 15% youth)	5,000 households (50% women and 15% youth)	Farmers will be willing to adopt rainwater harvesting facilities
A3.0 Increased resilience of infrastructure and the built environment to climate change	A3.1 Number and value of physical assets made more resilient to climate variability and change, considering human benefits	Final Evaluation Reports	USD 30 Million		USD 57 Million	The catchments for the farmlands in which the investments are made by PNSADR-IM are all reached by this GCF project

D.3. Outcomes measured by GCF indicators

Expected Outcomes	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
A5.0 Strengthened institutional and regulatory	A5.1 Institutional and regulatory systems that improve incentives	National Action Plan; National and Regional Stakeholder	0	One National Policy on Sustainable Land	Three Policies and accompa	Local institutions and partners have resources to mainstream

systems for climate-responsive planning and development	for climate resilience and their effective implementation	Engagement and Policy Reports; Draft Basin Management Regulations		Management (SLM) reviewed and adopted	nying district level regulations on Sustainable Land Management (SLM) reviewed and adopted	SLM into their programmes and activities; There will be strong commitment from the communities and local leadership to address land degradation in the two beneficiary basins
A8.0 Strengthened awareness of climate threats and risk-reduction processes	A8.1 Number of males and females made aware of climate threats and related appropriate responses	Interim and Final Evaluation Reports; Surveys; Field Reports	0	70,000 persons (50% women and 15% youth)	150,000 (50% women and 15% youth)	Farmers remain committed and continue with the adopted SLM practices within their farms; Extension officers will mainstream sustainable land management practices in their day to day training programme

D.4. Arrangements for Monitoring, Reporting and Evaluation (max. 300 words)

The AE will be responsible for managing the project reporting to the GCF. The NPMU will work closely with IFAD country team on the supervision reports, the Interim Evaluation (Mid-Term Review) and the Final Evaluation (Project Completion Report). During the joint IFAD and government project supervision missions, the PMU will provide certified periodic financial statements and progress reports. To facilitate the implementation of the project, a climate finance specialist will be provided by IFAD to the NPMU to report on the GCF funds as well as on the implementation of activities. The project coordinator in consultation with IFAD country teams and the NPSC will oversee the process of hiring an external expert to carry out the mid-term review which will provide an assessment of project performance at the project's mid-point. The same process will be employed at the end of the project for the end of project report.

Annual Reports will be submitted to the GCF as established in the AMA along with relevant reports developed by the NPMU. As established in the AMA, the annual reports will be submitted to the Secretariat annually for the period ending on 31st December.

The NPSC will provide strategic guidance on the project progress, challenges and management responses to the reviewer's recommendations or queries, along with an implementation plan. IFAD will provide the quality control of all the reports shared by the PMU. The project completion exercise will take place at least six months

to the end of project closure in accordance with IFAD procedures. A final report will be prepared and submitted by IFAD to the GCF after the approval of the IFAD Independent Office for Evaluation (IOE). Comments and recommendations will be included in the final document to be disclosed.

E. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA
E.1. Impact potential (max. 300 words)

E.1.1. Expected tons of carbon dioxide equivalent (t CO ₂ eq) to be reduced or avoided (Mitigation and cross-cutting)	Annual	143,998 tCO ₂ eq
	Lifetime	2,879,965 tCO ₂ eq
E.1.2. Expected total number of direct and indirect beneficiaries, disaggregated by gender (Adaptation and Cross-cutting)	Direct	240,000 55 % of female
	Indirect	333,540 55 % of female
E.1.3. Percentage of beneficiaries relative to total population	Direct	2.2 % of the country
	Indirect	3.1 % of the country

The project directly contributes to the GCF's strategic results areas for adaptation, namely:

Increased resilience of health, water and food security: 573,540 people (240,000 direct beneficiaries and 333,540 indirect beneficiaries) living within the Imbo and Moso basins and its catchments. This will be achieved by safeguarding food production systems against climate change impacts and particularly flood and siltation resulting from increased rainfall.

Increased resilience of livelihoods of the most vulnerable people and communities: 573,540 people (minimum 315,447 women and 258,093 men) will benefit from the adoption of soil and water conservation practices. The project will also increase the resilience of valuable irrigation infrastructure, protecting it from rapid onset events such as floods and siltation resulting from soil erosion in turn resulting from more intense rainfall events.

Infrastructure and built environment: 333,540 people will benefit from irrigation infrastructure, which will be protected from increased siltation as a result of the investments in soil and water conservation practices by the upstream communities. The project will thus improve the sustainability of the irrigation infrastructure while communities upstream (240,000 people) will also benefit from improved productivity as a result of the soil and water conservation structures.

Ecosystem and ecosystem services: 573,540 people will benefit from improved ecosystem services through the soil and water conservation measures. The measures will improve the soil moisture retention, which will improve the functionality of the agro-ecosystem and lead to improved agriculture productivity. The measures will also result in improved water availability in the long term for the irrigation schemes.

Interventions of the project will reach 240,000 individuals (direct beneficiaries) and at least 333,540 indirect beneficiaries (total 573,540 people). This estimation is based on populations served by irrigation schemes and farmers within the upper and mid catchment areas of the Imbo and Moso basins. It is expected that the number of beneficiaries will be higher given the high replicability of the proposed interventions.

As regards mitigation:

The annual mitigation potential of the project (143,998 tCO₂ eq) corresponds to 3% of Burundi's annual GHG emissions as of 2015.

[1] Figures are based on a preliminary analysis conducted with the EX-ACT tool developed by FAO: <http://www.fao.org/tc/exact/ex-act-home/en/>.

[2] Crippa et al. 2019. Fossil CO₂ and GHG emissions of all world countries. Office of the European Union, JRC: <https://edgar.jrc.ec.europa.eu/overview.php?v=booklet2019&dst=GHGemi>.

E.2. Paradigm shift potential (max. 300 words)

The proposed project aims at increased climate resilient sustainable development through reducing climate change-induced siltation to irrigation fields downstream of the Imbo and Moso regions and thus protecting the investments in these areas and ensuring household food security. The project will support farmers up-stream to adopt sustainable water and soil conservation practices and incentivize the co-dependence and benefit sharing with the downstream users of the irrigation schemes, standing out as a model to follow for future project designs. To sustain this effort, the project will promote practices that will increase productivity and income of upstream farmers. For instance, the vegetation selected to stabilise on-farm soil conservation structures will also be used as a food crop or animal feed. The increased incomes and improved livelihoods are aimed at contributing to alleviating poverty and thus empowering communities to invest in their livelihoods after the end of the project. The implementation of this project will have a strong impact and ensure that soil erosion, siltation of downstream irrigation schemes and sustainable land use are integrated in future projects. Another key lessons is the importance of taking a landscape approach and ensuring that climate change impacts and vulnerabilities are taken into account in all future projects.

By reducing soil erosion upstream, downstream investments, specifically the irrigation schemes, will be protected against siltation, thus reducing their operational cost. This will safeguard the livelihoods of 333,540 smallholder farmers who depend on these irrigation schemes for their livelihoods and food security. In addition, supporting up-stream farmers adopt better agro-ecosystem management and agricultural production practices on their farms will increase their productivity and income levels, which will translate into improved food security for the population. These practices will be upscaled to other regions of Burundi as a result of this SAP project. The formulation of additional financing for further engagement of the AE in Burundi scheduled for 2021 will identify further regions and locations for scaling-up.

The practices promoted under this project will have noticeable benefits in terms of profitability and productivity of participating farmers. This will most likely stimulate non-participating farmers to adopt the same practices once the benefits are visible and well documented. The project will also support the development of regulations, by-laws and guidelines on steep slopes use and influence project designs in these areas. Extension officers will ensure that these regulations are adopted beyond project's geographical coverage and lesson learned integrated in the up-scaling of the activities promoted post-project. The socio-

economic benefits of these practices, including water harvesting at household level, will make them a necessity rather than an option which will sustain the practices post-project without external finance. In addition, outcomes from this project will stimulate action in other similar areas as siltation and soil erosion are a major challenge in Burundi, as indicated in the country's Nationally Determined Contributions (NDC) that reflects the climate change risks identified in the NAPA.

This project is aligned with the country's priorities outlined in the NDC, primarily the promotion of intensified water-efficient agriculture production based on an agro-ecological approach. These priorities have been reiterated from the NAPA which aims at promoting initiatives to control soil erosion and popularising rainwater harvesting among others. This will enhance agricultural productivity and improve the water security of the communities both of which are threatened by climate change impacts.

E.3. Sustainable development (max. 300 words)

The project contributes directly to the following SDG targets:

SDG 1: End poverty in all its forms everywhere.

Target 1.5: Build the resilience of the poor and those in vulnerable situations.

SDG 2: End hunger, achieve food security and improve nutrition and promote sustainable agriculture.

Target 2.1: End hunger and ensure access by all people.

Target 2.3: Double the agricultural productivity and incomes of small-scale food producers.

Target 2.4: Ensure sustainable food production systems and implement resilient agricultural practices.

SDG6: Ensure availability of sustainable management of water and sanitation for all.

Target 6.6b: Support and strengthen the participation of local communities in improving water and sanitation management.

SDG 13: Take urgent action to combat climate change and its impacts.

Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Other sustainable development benefits include:

Environmental co-benefits: sustainable agricultural practices will significantly reduce soil erosion and soil fertility loss, which are major environmental issues of concern in Burundi. The Environmental and Social Action Plan (ESAP), with costs included in the project activities (Annex 12), will be coordinated by the PMU and implemented in collaboration with service providers and the communities.

Economic co-benefits: The trade of fruits, vegetable and animal feed used as soil stabilizing vegetation will have positive impact on the income levels of the project beneficiaries.

Gender sensitive development impact: gender equality will be enhanced as more than 45% of the project direct beneficiaries will be women and youths. The gender action plan (Annex 4) that will be coordinated by the PMU and implemented with service providers states gender-disaggregated data will be assessed against the appropriate indicator to measure enhanced women participation. The project intends to close the gender gap, given women represent more than 60% of the work force in agriculture and have insufficient access to productive assets, finance and knowledge. Women will be included in the PMU and the PSC to influence the main strategic decisions.

E.4. Needs of recipient (max. 300 words)

Globally, Burundi has the lowest per capita GHG emissions, ranking 188 out of 188 countries and contributing only 0.01% to global emissions. However, it is highly vulnerable to global climate change. Burundi ranks 171 out of 181 countries in the ND-GAIN index (2016) for climate vulnerability. It is the 14th most vulnerable country and is the 17th least ready country to combat climate change effects. Agriculture (mainly rain-fed) is its primary economic sector, employing 90% of its inhabitants. The country is densely populated, has a high population growth, and yet only 36% of the country is arable. To realise its food security objectives, the country aims at boosting agricultural productivity, which is the lowest in the region.

Cognisant of these challenges, the Government of Burundi has embarked on an effort to rehabilitate irrigation schemes in the Imbo and Moso regions. These efforts have already paid off, increasing the country's rice production by 75,000 tons per year. However, this progress is at risk as heavy rains and the subsequent floods upstream of these irrigation schemes have increased siltation levels, eventually increasing the operating cost of the irrigation schemes and subsequently reducing their productivity. More than 333,000 smallholder farms currently depend on these irrigation schemes for their livelihoods. It is therefore critical to safeguard this investment and secure their livelihoods. In addition the local investments need to be reoriented to sustain the development gains in the face of climate change.

Building the resilience of the population, particularly the agro-pastoral communities, is a priority articulated in the NDC. This project will contribute to increasing their productivity and profitability, enabling them improve their food security situation hence reducing their climate vulnerability. The proposed practices will be locally adapted and implemented, leveraging on the knowledge fully available among the communities for sustainability through the capacity building of local actors, enterprise development and FFS.

E.5. Country ownership (max. 500 words)

The project is aligned with Burundi's NDC and the priorities for adaptation in human and institutional capacity building and the technical and technology transfer. The project will contribute to water resources management control as well as informing, educating and communicating climate risk and adaptation technologies. The NDC builds on the National Adaptation Programme of Action (NAPA, 2007), National Climate Change Policy (2012), and the National Strategy and Action Plan on Climate Change (2012). In these documents, climate change adaptation for the agricultural sector is considered as a major priority for the country as it is the main driver of economic development and the majority of the population depends on it for their livelihoods. The Government has instituted several other policies aimed at protecting agricultural productivity in the country. Among these are the National Agricultural Strategy, 2008-2015 (2008), the National Sustainable Land Use Strategy (2007) and the National Action Programme to Fight Land Degradation (2005). In these documents, some of the strategies the government is employing to protect soil and water resources include: coaching of the population to develop their resilience to climate change; development of

institutional and operational capacities to coordinate programmes that are resilient to climate change; increase in agricultural production and productivity; development of sustainable production systems that can re-establish food self-sufficiency in the short and medium terms; capacity-building in innovative and sustainable agriculture practices in order to transform subsistence farming into profitable market-oriented agriculture.

Finally, the project is aligned with the National Water Resources Management Policy and Action Plan (2001) and the Water Code (Law 1/02 of 26/03/2012 enacting the Water Code in Burundi) that prioritizes water control with a view to increasing agricultural and livestock production. Throughout all the above plans and priorities, the development of human and institutional capacity is seen as central for their success. This GCF project is therefore considered as a top priority by the Government. The project is designed in close consultation with the National Government relevant ministries (ministries of agriculture & Livestock and of Housing & Public Works), the National Designated Authority and with IFAD.

The project idea was identified in December 2018, during a mid-term review of PNSADR-IM. During this review it was noted that the investments made were under threat from increased siltation as a result of floods upstream of the irrigation schemes. Initial consultations with the NDA were held and recommendations for sourcing additional resources from the GCF were agreed. Several other missions to discuss the project with the beneficiaries, local administration, local institutions and other stakeholders were held subsequently as indicated in the stakeholder consultation report attached herein. From these consultations, a concept note was developed and shared with the NDA for consideration. Subsequently, it was noted that the concept note was in line with government priorities and IFAD was selected as the best accredited entity to deliver the project as it was familiar with PNSADR-IM. IFAD has extensive experience implementing such projects across Africa with local farmers and communities. It is now one of the most trusted institutions that work directly with local farmers putting into consideration their specific cultural, political and economic needs.

Consultations are central to IFAD's approach even during conflicts. Given the specificity of the project, the stakeholders identification and consultation will continue to ensure that all relevant actors are involved at different levels. The consultation and engagement will continue through beneficiary selection, sensitisation and awareness-raising exercises, capacity-building activities, project implementation, monitoring and review as well as routine supervision, which includes site visits and interaction with beneficiaries.

E.6. Efficiency and effectiveness

E.6.1. Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (Mitigation and Cross-cutting)	(a) Total project financing	US\$ 31,721,500
	(b) Requested GCF amount	US\$ 9,994,500
	(c) Expected lifetime emission reductions	2,879,965 tCO ₂ eq
	(d) Estimated cost per tCO₂eq (d = a / c)	US\$ 11.01 / tCO ₂ eq
	(e) Estimated GCF cost per tCO₂eq removed (e = b / c)	US\$ 3.47 / tCO ₂ eq
E.6.2. Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by	(f) Total finance leveraged	US\$ 21,727,000
	(g) Public source finance leveraged	US\$ 21,727,000
	(h) Private source finance leveraged	US\$ 0
	(i) Total Leverage ratio (i = f / b)	2.17
	(j) Public source leverage ratio (j = g / b)	2.17

public and private sources (Mitigation and Cross-cutting)	(k) Private source leverage ratio ($k = h / b$)
<p>The proposed project is an adaptation project, de-risking financing, which is not likely to attract investments from the private sector as it focuses on protecting irrigation schemes from excessive siltation through farm level investments and improving the policy environment, which represent public investments. The rehabilitated irrigation schemes are run by smallholder farmers, who do not have the financial muscle to support soil and water conservation upstream of such schemes. The Government of Burundi could potentially use public funds to support this project if these were available. However, the country is one of the poorest in the world and as a result it faces a wide array of competing issues for the little financing available. Therefore, if the government was to invest in this, it would take a very longtime before money is allocated and this could be too late to safeguard the irrigation investments. In 2019 the country had a debt burden ranging at 63.5% of the GDP, which makes it unattractive to external creditors and, as such, has no access to international capital markets. The GCF is the most appropriate source of grant funds, as the increased siltation risks emanate from increased rainfall intensity in the upper catchment as projected in climate scenarios. In addition to the GCF financing, IFAD who is the AE, will also contribute resources through PIPARV-B investments towards this project to expand on the reach.</p> <p>In addition, landscape-based approach to reduced surface runoff and subsequent soil erosion would generate positive externalities for people throughout the catchment. However, these benefits are not direct and face the “tragedy of the commons” trap, which means farmers cannot invest in such activities before the benefits are clear to them. For this reason, most investments by farmers tend to focus on short term goals within the farmers boundaries with minimal attention to the wider landscape. In this scenario, investments by GCF will demonstrate the economic and productivity co-benefits of soil and water conservation, which will stimulate wider adoption of such sustainable practices. The benefits will be evident in the improved productivity of the households and thus improved livelihoods and food and nutrition security at household level.</p> <p>The economic and financial analysis of the project shows an economic internal rate of return (EIRR) is 12 per cent (Annex 10). The estimated economic net present value (ENPV) at a 9 per cent discount rate is USD 3.09 million. The economic BCR is 1.19, while the financial BCR is 1.15. The NPV of the Project at 15% discount rate was determined to be US\$ 2.20 million and the IRR was determined to be 18%. These results indicate that the project is a sound investment yielding a positive rate of return as the ERR is greater than the hurdle rate (9 per cent) and the ENPV is greater than zero.</p>	

F. ANNEXES

F.1. Mandatory annexes

- Annex 1 NDA No-objection Letter(s)
- Annex 2a Example project level logframe
- Annex 2b Example timetable
- Annex 3 Budget plan that provides breakdown by type of expense
- Annex 4 Gender assessment and action plan
- Annex 5 Co-financing commitment letter
- Annex 6 Term sheet and evidence of internal approval
- Annex 7 Risk assessment and management
- Annex 8 Procurement plan model
- Annex 9a Legal Due Diligence (regulation, taxation and insurance)
- Annex 9b Legal Opinion/Certificate of Internal Approvals

F.2. Other annexes to be submitted when applicable/requested

- Annex 10 Economic and/or financial analysis
(mandatory for private-sector proposals)
- Annex 11 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 12 Environmental and Social Action Plan (ESAP)
- Annex xx Other references

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*

Bujumbura, 23 January, 2019

REPUBLIQUE DU BURUNDI



**MINISTERE DE L'ENVIRONNEMENT,
DE L'AGRICULTURE ET DE L'ELEVAGE**

To

Margarita Astralaga
Director for Environment, Climate and Social
Inclusion Division
International Fund for Agricultural Development
(IFAD)
Paolo di Dono, 44
00142 Roma, ITALY

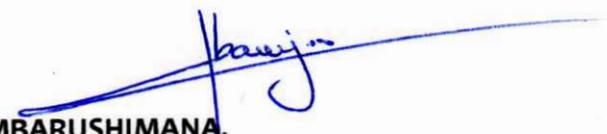
Subject: Appointment as Accredited Entity to the Green Climate Fund for the project Climate Proofing the National Program for Food Security and Rural Development in Imbo and Moso (PNSADR-IM)

Dear Ms. Astralaga,

In my capacity as representative of the National Designated Authority for Burundi, I hereby confirm the appointment of IFAD as the Green Climate Fund (GCF) Accredited Entity to implement the project "Climate Proofing the National Program for Food Security and Rural Development in Imbo and Moso (PNSADR-IM)" which under development to submit for funding to the Green Climate Fund.

The Ministry of Agriculture, Livestock and Environment highly appreciates the support of IFAD and the results of the PNSADR-IM and is why this GCF Project is of paramount importance to Burundi. We therefore acknowledge that IFAD is best placed to be the AE to implement Burundi's first ever request to the GCF. PNSADR-IM is in support with Burundi's priorities and policies.

Sincerely,


Mr. Jean Claude MBARUSHIMANA,

GCF Focal Point and the General Director of Agriculture,
Ministry of Environment, Agriculture and Livestock, Republic of Burundi

Bujumbura, 23 January, 2019

REPUBLIQUE DU BURUNDI



**MINISTERE DE L'ENVIRONNEMENT,
DE L'AGRICULTURE ET DE L'ELEVAGE**

To:

Mr. Javier Manzanares
Executive Director *a.i.*
Secretariat of the Green Climate Fund
175 Art Center-daero
Yeonsu-gu, Incheon 406-840
Republic of Burundi

Re: Funding proposal for the GCF by International Fund for Agricultural Development (IFAD) regarding *Climate Proofing the National Program for Food Security and Rural Development in Imbo and Moso (PNSADR-IM)*

Dear Madam, Sir,

We refer to the project "*Climate Proofing the National Program for Food Security and Rural Development in Imbo and Moso (PNSADR-IM)*" in Burundi as included in the funding proposal submitted by International Fund for Agricultural Development (IFAD) to GCF on behalf of the Government of Burundi, through the Simplified Approval Process (SAP) modality.

The undersigned is the duly authorized representative of the Ministry of Agriculture, Livestock and Environment, the National Designated Authority/focal point of Burundi. Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Burundi has no-objection to the project as included in the SAP funding proposal;
- (b) The project as included in the funding proposal is in conformity with Burundi's national priorities, strategies and plans;
- (c) In accordance with the GCF's environmental and social safeguards, the project as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the project as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all activities to be implemented within the scope of the project and that IFAD is the GCF Accredited Entity to develop the Funding Proposal and Implement the project under the ongoing PNSADR-IM.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Mr. Ir Jean Claude MBARUSHIMANA,
GCF Focal and the General Director of Agriculture
Ministry of Environment, Agriculture and Livestock, Republic of Burundi

Secretariat's assessment of SAP017

Proposal name:	Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi
Accredited entity:	International Fund for Agricultural Development (IFAD)
Country/(ies):	Burundi
Project/programme size:	Small (SAP)

I. Summary of the Secretariat's assessment

- The funding proposal is presented to the Board for consideration with the following remarks:

Strengths	Points of caution
The project preserves and extends the economic viability and useful life of downstream investments in irrigation worth USD 57 million, while enhancing productivity of upstream farms by conserving soil and water.	While the project engages experienced existing business incubators as partners in Burundi, there is a risk that viable and scalable businesses may take time to materialize and mature, as this is contingent on further rounds of financing by private sector financial institutions.
The proposed GCF-funded project is embedded within a larger project (Agricultural Production Intensification and Vulnerability Reduction Project) funded by IFAD, which draws lessons from and scales up a previous IFAD-funded programme (National Programme for Food Security and Rural Development in Imbo and Moso). IFAD, as the accredited entity, and the Government of Burundi (Ministry of Finance and Ministry of Environment, Agriculture and Livestock), as the executing entity, are experienced in implementation of these programmes.	
The project has potential for scaling up to other catchments in Burundi and will inform climate-sensitive design for future investments in irrigation, agriculture and livelihoods support.	
The project will build the enabling environment for adaptation and aligns well with government policies on climate, agriculture, livelihoods development and water management.	

2. The Government of Burundi, in partnership with IFAD, is rehabilitating rice irrigation schemes on the plains of the Imbo and Moso basins, with the aim of improving the food security situation and livelihoods for the poor. Since 2016, the five-year National Programme for Food Security and Rural Development in Imbo and Moso (PNSARDR-IM) has rehabilitated irrigation schemes amounting to 1,500 hectares against a target of 2,470 hectares, and protected nearly 10,000 hectares of watersheds out of 12,000 hectares planned. However, the irrigation schemes face major siltation risk from the projected increase in surface run-off and resultant soil erosion upstream (due to climate-induced intensification of rainfall). This threat has the potential to render the schemes inoperable within a few years. This is aggravated by the fact that the catchments are made up of very steep slopes, where smallholder farmers produce their crops with minimal soil and water conservation considerations, and the farmers are also at risk of reduced livelihood opportunities through land degradation.

3. The GCF funds will climate-proof the PNSADR-IM investments and build the climate resilience of the livelihoods of upstream and downstream beneficiaries, laying the ground for green agribusiness development. Climate-proofing entails reducing surface run-off and soil erosion in the catchment under the threat of increased precipitation resulting from climate change impacts. The proposed project will be part of a larger IFAD initiative – the Agricultural Production Intensification and Vulnerability Reduction Project (PIPARV-B) – which is scaling up the PNSADR-IM with a greater focus on integrated land management involving the optimal use of natural resources, tailored to the growing population pressure.

4. This project aims to increase agricultural productivity for farmers in the upper, middle and lower catchments of the Imbo and Moso basins through adoption of better agroecosystem management practices to retain soil and rainwater. The project will support farmers in reforestation, reduction of soil erosion, improvement of soil fertility, better water management, and reduction of wood consumption (for household energy needs), among others. The project is expected to set the norm for a national climate-proofing approach for both infrastructure and watersheds. The project has three components, as described below.

Component 1: Improvement of soil and water management through the adoption of best practices in agroecosystem management by land users

5. This component will support smallholder farmers, selected on the basis of vulnerability categorization and gender sensitivity, to adopt practices that will improve soil and water conservation to address the risk of increased soil erosion and land degradation.

- (a) Output 1.1: Increased adoption of sustainable soil and water management practices. This output will develop approaches and initiatives to facilitate the adoption of sustainable land management practices by smallholder farmers;
- (b) Output 1.2: Increased on-farm rainwater harvesting at household level. This output will increase the rainwater-harvesting capacity of local farmers, as an economically viable and climate-resilient solution; and
- (c) Output 1.3: Increased incentives for the development of “green” micro, small and medium-sized enterprises that spur water and soil conservation action. This output will support the development of community and personal agro-business initiatives that will ensure that the project gains are sustained beyond the project lifetime.

Component 2: Capacity-building of actors at all levels on best agroecosystem management practices for enhanced soil and water conservation

6. This component will improve the knowledge base for locally effective soil and water conservation practices that can be replicated in similar ecosystems.

- (a) Output 2.1: Building capacity of actors in improved agroecosystem management for enhanced soil and water conservation; and

(b) Output 2.2: Establishment and operationalization of farmer field schools.

Component 3: Development of an enabling environment for water and soil conservation

7. This component will facilitate the review of current policies and by-laws on soil and water conservation. It will improve alignment of the National Agricultural Investment Plan with the Nationally Determined Contribution (NDC) and the National Adaptation Programme of Action (NAPA). A sustainable finance roundtable will be organized to advocate for the funding of the environment/climate-related activities of the action plan. This component has one Output, i.e. Output 3.1: Enabling policy and legislative framework for soil and water conservation established.

8. The project is an SAP project, rated environmental and social Category C (low risk). It has also been judged by the GCF Secretariat as fulfilling the eligibility criteria under the SAP criteria of scaling up, innovation and replicability.

9. The Board may consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XXIII, titled "List of proposed conditions and recommendations".

II. Assessment of performance against investment criteria

2.1 Impact potential

Scale: N/A

10. Based on the Representative Concentration Pathway (RCP) 4.5 scenario, the average annual temperature in Burundi is likely to increase by 0.75 °C in 2021–2050 compared with the 1991–2020 period. Rainfall is projected to become increasingly variable, with more extremes, and increase by about 10 per cent in the south of the country. Climate projections also indicate that rainfall is likely to decrease in March–April and August–September by 10–25 per cent, prolonging the dry periods and increasing drought risk significantly. These climate changes will engender a number of risks associated with: (i) season creep, changing the growing seasons of crops and forests; (ii) episodic flooding of swamps and lowlands; (iii) land degradation from loss of soil due to more frequent and intense rainfalls events and resultant run-off; and (iv) more frequent extreme weather events (hail, violent showers, heavy winds, etc.). The changes in precipitation, in particular, will put at risk several government investments that have been made to improve the livelihood of its citizens, rehabilitate irrigation schemes and increase food security.

11. The project comprises climate change adaptation activities prioritized in the NDC and NAPA that will increase the resilience of 240,000 direct beneficiaries (smallholder farmers in the upper and middle catchments) and 333,540 indirect beneficiaries (irrigation scheme users in the lower catchments), and protect their livelihoods and the agroecosystems they depend upon. It will also ensure the sustainability and prolonged productivity of USD 57 million of public investments in downstream irrigation, food security and livelihoods support structures in the face of climate change. Fifty-five per cent of the targeted direct and indirect project beneficiaries are female.

12. In addition to adaptation impact, the project has an annual mitigation impact of about 144,000 tonnes of carbon dioxide equivalent (tCO₂eq) per year and a lifetime impact of about 2.9 MtCO₂eq. This represents 3 per cent of the annual GHG emissions of Burundi (as at 2015). While not considered substantial enough to render the project cross-cutting, the emissions reduction will be tracked and reported on as a mitigation co-benefit. The planting of vegetation in this project is for the purpose of increasing soil and water retention in the upper and middle catchments.

2.2 Paradigm shift potential

Scale: N/A

13. Promotion of sustainable water and soil management practices will enhance climate resilience of smallholder farms in the target basins. It will also demonstrate how actions taken upstream in a basin can deliver positive results both for the actors and for other persons further downstream.

14. The soil and water management practices promoted under this project will have noticeable benefits in terms of the productivity and profitability of participating farmers. This is likely to stimulate non-participating farmers to adopt the same practices once the benefits are visible and well documented. The project will also support the development of regulations, by-laws and guidelines on the management of steep slopes, and influence design of future projects in these areas. Extension officers will ensure that these regulations are adopted beyond the project's geographical coverage, and that lessons learned are integrated in the post-project scaling up of the promoted practices.

15. In addition, outcomes from this project will stimulate action in other similar areas, as siltation and soil erosion are a major challenge in Burundi – as indicated in the country's NDC (which reflects the climate change risks identified in the NAPA). Specifically, better agroecosystem management and agricultural production practices will be scaled up to other regions of Burundi as a result of this project.

2.3 Sustainable development potential

Scale: N/A

16. The project contributes to Sustainable Development Goal (SDG) 1 (End poverty in all its forms everywhere) Target 1.5: Build the resilience of the poor and those in vulnerable situations. It also contributes to: SDG 2 (End hunger, achieve food security and improve nutrition and promote sustainable agriculture) Target 2.1: End hunger and ensure access by all people; Target 2.3: Double the agricultural productivity and incomes of small-scale food producers; and Target 2.4: Ensure sustainable food production systems and implement resilient agricultural practices. Moreover, it seeks to contribute to SDG 6 (Ensure availability of sustainable management of water and sanitation for all) Target 6.6b: Support and strengthen the participation of local communities in improving water and sanitation management. Finally, the project contributes to SDG 13 (Take urgent action to combat climate change and its impacts) Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

17. In addition, the project has environmental benefits, because sustainable agricultural practices will significantly reduce soil erosion and soil fertility loss, which are major environmental issues of concern in Burundi. The project has economic co-benefits through enhancing trade in fruits, vegetables and animal feed, which will have a positive impact on the income levels of the project beneficiaries. In addition, gender-sensitive development impacts result from gender equality, which is to be enhanced because more than 55 per cent of the project's direct beneficiaries will be women and young people.

2.4 Needs of the recipient

Scale: N/A

18. Burundi ranks 171 out of 181 countries for climate vulnerability in the Notre Dame Global Adaptation Index (2016). It is the fourteenth most vulnerable country and is the seventeenth least ready country to combat climate change effects. Agriculture (mainly rain-fed) is its primary economic sector, employing 90 per cent of its inhabitants. The country is densely populated, has a high population growth, and yet only 36 per cent of the country is arable. To

realize its food security objectives, the country aims to boost agricultural productivity, which is the lowest in the East African region.

19. The project is not likely to attract investments from the private sector, as it focuses on protecting irrigation schemes from excessive siltation, through farm-level investments and improving the policy environment. The Government of Burundi is also highly indebted, and public funds are not available to support this project. In 2019, the country had a debt burden of about 63.5 per cent of its GDP, with limited access to capital, other than concessional finance and overseas government assistance. The GCF is the most appropriate source of grant funds for climate risk management. In addition to the GCF financing, IFAD, as the accredited entity (AE), will contribute resources through PIPARV-B investments towards implementing this project.

2.5 Country ownership

Scale: N/A

20. The project is aligned with the NDC of Burundi and the country's priorities for adaptation, in human and institutional capacity-building and in technical assistance and technology transfer. The NDC itself builds on the NAPA (2007), National Climate Change Policy (2012), and the National Strategy and Action Plan on Climate Change (2012). The Government has instituted several other policies aimed at protecting and enhancing agricultural productivity in the country, which this project will contribute towards. The project is also well aligned with the National Water Resources Management Policy and Action Plan (2001) and the Water Code (Law 1/02 of 26/03/2012 enacting the Water Code in Burundi), which prioritizes water management with a view to increasing agricultural and livestock production.

21. The project idea was identified in December 2018, during a midterm review of the PNSADR-IM. Initial consultations with the National Designated Authority (NDA) were held, and recommendations for sourcing additional resources from the GCF were agreed. The project conception included consultations with beneficiaries, local administrations, local institutions and other stakeholders. The NDA has confirmed that the current project is in line with government priorities and has issued a no-objection letter to this effect.

22. The AE (IFAD) has extensive experience in implementing similar projects across Africa with farmers and communities. IFAD is also well positioned to deliver the project, as it implemented PNSADR-IM and is already implementing PIPARV-B. Given the specificity of the project, stakeholder identification and consultations were undertaken to ensure relevant actors are involved at different levels. The consultations and engagement will continue through beneficiary selection, sensitization and awareness-raising exercises, capacity-building activities, and project implementation monitoring and review, as well as routine supervision, which includes site visits and interaction with beneficiaries.

2.6 Efficiency and effectiveness

Scale: N/A

23. The total financing required by the project is USD 31,721,500, of which GCF financing is USD 9,994,500 (which represents about 31 per cent of the project cost). The cofinancing ratio is 2.1, which is higher than most adaptation projects in the GCF portfolio.

24. The GCF and IFAD are both providing grant funding to the project, which represents a 100 per cent concessionality of funding. While not mandatory for consideration of SAP projects, the AE has submitted an economic and financial analysis. The project economic internal rate of return is estimated by the AE as 12%, with an economic net present value of USD 3,094,125, using a discount rate of 9%.

25. While mainly an adaptation project, the project also has co-benefits for mitigation, valued as an expected lifetime emissions reduction of 2,879,965 tCO₂eq. Therefore, the

estimated cost is USD 11.01/tCO₂eq, and the estimated GCF cost is USD 3.47/tCO₂eq. These figures are favourable from a cost-efficiency and cost-effectiveness standpoint.

26. The project aims to extend the useful life of downstream irrigation infrastructure and build the resilience of the USD 57 million investment previously made in phase one of the PNSADR-IM. By reducing climate change risk, the project will also protect and stimulate private investments made by smallholder farmers within, upstream and downstream of the project sites. Other indirect economic effects of the investments also add to the cost-efficiency and cost-effectiveness argument in support of the GCF financing for the project.

III. Assessment of consistency with GCF safeguards and policies

3.1 Environmental and social safeguards

Does the project comply with the GCF Environmental and Social Policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Does the project have minimal to no environmental and social safeguards risks compatible with SAP?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

27. The project is expected to contribute to increased resilience of the health, water resources and food security of its beneficiaries, particularly within the Imbo and Moso basins and their catchments. To protect food production systems from flood and siltation due to increased precipitation, the project's activities will foster the adoption of soil and water conservation practices, increase the resilience of irrigation facilities, and ensure sustainability of the proposed interventions. The AE has classified the proposal as a low-risk project, which is confirmed as being equivalent to GCF's category C classification by the Secretariat, and within the AE's accreditation level.

28. The interventions under the project are basically small-scale with potential minimal risks and impacts related to localized loss of soil material resulting in, among others: possible sedimentation in surface water and/or groundwater systems from minor earthworks; increased noise and dust levels at nearby houses or communities; minimal vegetation clearing and habitat disturbance; and health and safety risks to workers. The AE has developed an environmental and social action plan to manage the identified potential risks and impacts, and has identified responsible entities and an implementation schedule and budget for the proposed measures. The project will also ensure that all access to land is undertaken in conformity with signed voluntary agreements.

29. Social inclusion, including of Twa groups, is addressed as part of the gender and youth assessment plan. The mobilization of the Twa and landless populations will be a project performance criterion, and the cogeneration of landscape management plans between upstream and downstream communities and the targeting strategy will promote the inclusion of different communities. Local knowledge will inform the cogeneration of the landscape management plans, which will provide an opportunity to build on and strengthen local knowledge systems.

30. As regards implementation of the safeguards measures, a national project management unit (NPMU) will act as the implementing entity, reporting directly to the AE. It will coordinate the activities on the ground and will be tasked with recruitment of project personnel, consultants and other service providers, and administering contracts with contractors or subcontractors. The implementation of the environmental and social action plan will be coordinated by the NPMU in collaboration with service providers and the communities.

31. The various stakeholders will be engaged through the holding of workshops and townhall gatherings in the target areas. The beneficiaries will also be engaged and will be

afforded the opportunity to participate in various platforms. Capacity-building and targeted training sessions, such as through farmer field schools, will also ensure regular engagement of the target beneficiaries. The project will build on the already established grievance redress mechanism created under the PNSADR-IM (which is implemented in the same geographical area as that of the project), in addition to the entity-level grievance redress mechanism of the AE.

3.2 Gender policy

Does the project comply with the GCF Gender Policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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32. The AE has provided the gender assessment and gender action plan as per the requirements of the GCF Gender Policy. The gender assessment indicates the existence of an enabling environment to promote gender equality and women’s empowerment in Burundi. Burundi has ratified the Universal Declaration of Human Rights, the Convention on the Elimination of All Forms of Discrimination against Women, and the United Nations resolution on the promotion of positive discrimination mechanisms and measures to correct imbalances and increase women’s participation in the decision-making process at all levels. The Constitution of Burundi reaffirms the principles of equality and non-discrimination, and guarantees gender equality. Despite the existence of these commitments, women in Burundi still face many challenges.

33. The gender assessment indicates that women play a major role in Burundi’s national economy and represent 55.2 per cent of the workforce. They are particularly active in the agriculture sector, which provides 90 per cent of food production, where they make up 51.56 per cent of the workforce and manage 22 per cent of the farms. However, the agriculture is mainly subsistence, and women’s heavy reliance on and contribution to the sector exposes them to many climate-related impacts. Despite women’s contribution in agriculture, the assessment indicates that only 17.7 per cent of women have access to land, as, by customary practice, the inheritance of land is patrilineal. Moreover, women have limited access to the formal financial sector. By custom, husbands are the owners and administrators of land and property. This limit women’s access to finance, as they are unable to put up property as collateral. Women are usually allowed to use land, but have no control over it or property rights. While access and control over land is a challenge for women, other challenges are also seen in women’s lack of control over productive resources, access to knowledge, information and training, and participation in agriculture groups. The division of labour in communities dictates that women and girls take responsibility for reproductive roles and for roles in the collecting of agricultural produce, waste and fuelwood. Fuelwood is the main source of energy for most rural households, and the use of fuelwood in households imposes a significant time burden on women and girls as well as exacerbating health issues for them. The division of labour means women have less time to focus on and invest in activities that could improve their well-being, educational status, health, employment and income. This affects their level of engagement and access to training on agriculture-related practices that could contribute to sustainable and climate-resilient actions.

34. The AE has provided a gender action plan that includes activities, indicators, targets, budgets, timelines and gender expertise to support its implementation. At the inception stage, the AE will collect baseline data relevant to the project, in particular, on the situations of women and youth, opportunities, and constraints to be identified in the project location. The AE will use a gender action learning approach throughout the project’s implementation. This approach will be used in order to address the various gender issues explained above and to be further identified through the baseline survey. The action learning to be used in the project will ensure that the intergenerational, girl-child-boy issues within the household will be deliberated on. This will provide communities with the opportunity to decide through dialogue and consensus-building on livelihoods, climate responses, and the tasks and resource-sharing actions they

would like to pursue. This tool will also help ensure and better the socioeconomic participation of women, provide an opportunity to improve functional literacy, and provide support to victims of gender-based violence, as well as reducing the work burden on women. The AE will ensure that equal opportunities are provided to women, men and young people to benefit from the various project interventions. It will do so by setting targets and through continuous monitoring, and by investing in capacity-strengthening activities of the various structures involved in the implementation of the project. This will ensure that women and young people will be equipped and able to: engage in sustainable land management of agroecosystems; be part of and lead innovations and small green businesses; engage in micro and small businesses and sustainable land management practices; have access to markets for their products; and see increases in their productivity in their watersheds.

3.3 Risks

3.3.1. Overall proposal assessment (medium risk):

35. The GCF is requested to provide a grant of USD9.9 million to increase agriculture productivity of farmers through adoption of agro-ecosystem management practices to conserve soil and moisture. The AE is providing a grant of USD21.7 million as a co-financing from the Agricultural Production Intensification and Vulnerability Reduction Project (PIPARV-B) initiative.

36. Burundi is an LDC. The proposed project will be part of a larger IFAD initiative PIPARV-B which is scaling up of previous initiative with a greater focus on integrated land management involving the optimal use of natural resources. The propose activities is not likely to attract investment from the private sector. Therefore, the AE requests the entire grant financing to cover the climate proofing provisions.

3.3.2. Accredited entity/executing entity capability to execute (medium risk):

37. IFAD has been assisting Burundi since 1980 through 13 projects a total value of USD572 million including USD262 million from IFAD financing.

38. The Ministry of Finance and Ministry of Environment, Agriculture and Livestock will be EEs for this project. Both ministries have implemented seven projects, budget range between USD25 – 110 million, for the past 5 years.

3.3.3. Project-specific risks (medium risk):

39. Risk of human induced fires: the funding proposal identified two risks of human induced fires. One is the risk of bush fires which are often started by communities in protest of the authorities. Another one is slash and burn practices to regenerate the grass for livestock grazing, which are widely practiced in the country. The project aims to increase vegetation cover in the hills in order to improve water retention and reduce surface run-off and these fires may counterproductive to the project implementation. The AE informed that although there was a civil strife in 2018, the situation has been stabilized since then and the recent election went smoothly in May 2020. The AE proposed that the project will work closely with regulators and community groups to enforce some of the regulations set to control human activity in the hilltops. The policy support activities (Component 3) will also include a regulatory framework taking into account the situation in the project areas and consultation with communities.

40. Green business supporting activities: the project will provide incentives to develop green enterprises through youth business incubation facility and provide linkages between farmers and the local MFIs. The FP indicates that the funds may be repurposed for the COVID-19 context in relation to the job creation for youth if it is in line with the AE's COVID-19

response strategy. It is necessary that the AE maintains the climate change related criteria & focus while adapting to COVID 19 context.

41. Economic and project viability: the financial analysis results in the IRR of 18% and the economic analysis shows an economic IRR of 12% over 20 years considering main benefits as yield increase in rice production. The sensitivity analysis shows that the project will be sensitive to the change in the variables. For example, it would be ceased to be viable when more than 2% of reduction in benefits, 5% of increase in cost and more than 1 year of delay revenues.

3.3.4. Compliance risk

42. IFAD has confirmed that the project and its activities will not engage with any entity or individual that may be subject to, or listed on, any United Nations Security Council sanctions lists. This confirmation is based on the fact that the sanctions have thus far not affected any IFAD-financed projects in Burundi.

43. IFAD has advised that there are no intentions to disburse or distribute cash, vouchers, commodities or other items of value among beneficiaries, either directly or indirectly. It has further advised that labour-intensive activities will be conducted in the Imbo and Moso basins with cash-for-work arrangements at the community level. Internal controls are within the project where such activities are included, with the registry of project beneficiaries and participants lists verified through community committees and the supervisory teams at the sites. These records are verified during supervision missions and fiduciary reviews.

44. IFAD has confirmed that the project will follow IFAD’s policies on anti-money-laundering, corruption and fraud as included in the general conditions of the financing agreement. These aspects are expected to be closely monitored through regular supervisions and reporting.

45. IFAD has advised that the integrated project risk matrix (IPRM) for IFAD’s country programme in the Burundi will be ready by the end of October 2020, and can be shared upon completion. The IPRM is expected to consider risks for money-laundering, the financing of terrorism or prohibited practices among the intended counterparties, executing entities, beneficiaries, persons involved, or any of the proposed activities.

46. **Recommended condition:** Considering that IFAD has yet to advise as to the results of its risk assessment on money-laundering, terrorist-financing, or prohibited practices, the Office of Risk Management and Compliance (ORMC)/Compliance Team recommends that payments **not** be disbursed until the IPRM and any intended control measures have been reviewed by the ORMC/Compliance Team and determined as acceptable.

47. **Recommended risk rating:** The Secretariat’s ORMC/Compliance team has conducted a review of the project in accordance with relevant GCF Board approved policies and does not find any material issue or deviation with respect to compliance issues. Based on available information for this funding proposal, the ORMC/Compliance Team has determined a risk rating of medium, and has no objection to this request proceeding to the next steps for processing.

48. The ORMC/Compliance Team has reminded IFAD of its continuing obligations and responsibilities with regard to monitoring and reporting any risks for money-laundering, financing of terrorism, or prohibited practices among the intended counterparties, EEs, beneficiaries, persons involved, or any of the proposed activities.

3.3.5. Summary risk assessment

Summary risk assessment	Risk assessment
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Overall project	Medium	The project success is relying on the IFAD's initiative and co-financing.
AE/EE capability to implement the project	Medium	
Project-specific execution	Medium	
GCF's portfolio concentration	Low	
Compliance	Medium	

3.4 Fiduciary assessment

Does the project comply with the GCF AE fee policy?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
In case the EE (ies) is different to the AE, has the financial management capacity assessment of the EE (ies) undertaken?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

49. The EE for the project is the Republic of Burundi through its Ministry of Finance and its Ministry of Environment, Agriculture and Livestock. The proposed project activities cut across the mandate of four state departments (Agriculture, Environment, Water, and Trade and Industrialization) and a management structure that brings together the various experts and stakeholders from these departments will be formed.

50. IFAD will undertake the role and responsibility of AE as per the agreement with the GCF and will maintain oversight of the different functions during project implementation.

51. A National Project Steering Committee (NPSC) will be established to provide guidance, oversight and policy direction to the project. The NPSC will also be responsible for approving workplans and budget for the project.

52. The NPMU, in the Ministry of Environment, Agriculture and Livestock, will undertake overall coordination, and the administrative and financial management as well as monitoring and evaluation. It will report directly to IFAD. The NPMU will be the implementing entity for the project, and it will be in charge of recruiting project personnel, consultants and other service providers. In addition, it will be in charge of all contractual obligations of the project by contracting and subcontracting various service providers for the purpose of project implementation. The NPMU will also monitor project implementation and the achievement of the project outcomes/outputs, and ensure the efficient use of project funds. The selection of service providers and implementing partners will be done competitively, based on a request for proposals. Agreements will be entered into that are results based and wherein the performance is assessed yearly before the renewal of contract or cooperation agreements. Moreover, the agreements/memorandums of understanding are to be submitted to IFAD on a no-objection basis prior to signature.

53. A financing agreement will be signed between the GCF and IFAD. The financial management and procurement within the project will be guided by IFAD's financial regulations, rules and practices, as well as by IFAD's Programme Implementation Manual. The NPMU will prepare semi-annual and annual project reports. Quarterly progress reports will also be prepared by the project's implementing partners and submitted by the NPMU to IFAD to ensure continuous monitoring of programme activities and identify challenges in order to adopt necessary corrective measures in due time. Financial reports will be submitted to IFAD in the format and time necessary for IFAD to comply with GCF reporting requirements.

54. In terms of financial monitoring, the project team will provide IFAD with certified semi-annual financial reports and with an annual audit of the financial statements relating to the status of funds according to the established GCF procedures. Audits will be undertaken in line with the IFAD “Guidelines for Financial Reporting and Auditing” for the programme. The annual project audit will include compliance with GCF requirements. The project will track expenditures by component-output and by expenditure category as per the budget.

55. It is recommended that the AE provide confirmation that the EE has undergone appropriate due diligence and capacity assessment per the AE’s own policies and procedures or address this outstanding matter as a condition for the project.

3.5 Results monitoring and reporting

Is the project in line with the GCF Monitoring and Accountability Framework?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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56. Overall, the funding proposal follows the required format and contains the key elements of results monitoring. However, the contents need to be revised to be fully consistent with GCF requirements and facilitate results monitoring and reporting. Fund-level impacts and outcomes need to be revised to match the GCF PMF indicators without modification. Further, the accredited entity needs to ensure that expected results and corresponding indicators in the funding proposal are fully consistent with those contained in annex 2 of the funding proposal. Baseline figures which are currently set to zero also need to be further assessed and updated.

57. The project level Logical Framework provided in annex 2a needs to be substantially revised. There are issues remaining in terms of consistency with the Logical Framework in the funding proposal document, firming up the baselines, targets, means of verification that need to be addressed. Some of the indicators used in the Logical Framework require qualitative assessments in order to conform to the results that GCF requires to be monitored and reported. Hence, some qualitative indicators and respective baseline and targets need to be included. GCF has provided the accredited entity feedback on areas of improvement.

58. The Secretariat proposes to submit the project to the Board for consideration, on the acceptance of either of two conditions, i) a covenant is to be included in the FAA that the indicators / baselines / targets / means of verification need to be further developed in a revised log-frame based on the comments provided by the Secretariat before execution of the FAA; or ii) a covenant is to be included in the FAA for revised log-frame with updated/further developed indicators/baselines/targets/MOVs to be submitted after first disbursement (if they need disbursement to conduct the baseline studies)

59. Implementation timetable: The implementation timetable needs to be consistent with the milestones and deliverables envisaged in the project Logical Framework. In addition, it needs to be populated with the specific milestones and deliverables indicating the exact timelines.

3.6 Legal assessment

Has the AE signed the accreditation master agreement (AMA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <u>Date of AMA execution:</u> 9/24/2018
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Has a bilateral agreement on privileges and immunities been signed with the country where the proposed project/programme will be implemented?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Has a certificate of internal approval been submitted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

60. As of October 19, the term sheet for the proposed project has not yet been agreed. In accordance with clause 6.01 of the accreditation master agreement (AMA), all funding proposals submitted to the Board for consideration shall be accompanied by a term sheet agreed by the AE and the GCF, setting out, in summary form, the key terms and conditions relating to the proposed funded activity. While there do not appear to be material legal issues arising out of the funding proposal, it is not possible at this time to assess whether there are any material legal issues in the term sheet. The GCF will work expeditiously with the Accredited Entity to resolve any pending issues and submit the agreed term sheet to the Board for consideration. If during the course of such finalization it becomes necessary for any additional conditions to be recommended to the Board prior to approval, such conditions will be made available to the Board at the same time that the term sheet is submitted for the Board's consideration

61. The AMA was signed with the AE on 24 September 2018, and it became effective on 9 November 2018.

62. The AE has not provided a legal opinion/certificate confirming that it has obtained all internal approvals and that it has the capacity and authority to implement the project. It is recommended that, prior to submission of the funding proposal to the Board: (a) the AE has obtained all its internal approvals; and (b) the GCF has received a certificate or legal opinion from the AE in form and substance satisfactory to the GCF confirming that all final internal approvals by the AE have been obtained and that the entity has the authority and capacity to implement the project.

63. The proposed project will be implemented in Burundi, a country in which the GCF is not provided with privileges and immunities. This means that, among other things, the GCF is not protected against litigation or expropriation in this country, which risks need to be further assessed. Discussions on privileges and immunities have not yet commenced with this country.

64. The heads of the Independent Redress Mechanism and the Independent Integrity Unit have both expressed the view that it would not be legally feasible to undertake their redress activities and/or investigations, as appropriate, in countries where the GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by the GCF be made only after the GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

65. The AE requested the Secretariat a deviation from the terms of the AMA to exclude the application of GCF's step-in rights for this project, indicating that since it is a public-sector project with a sovereign counterparty, it is not feasible for the AE to allow GCF or any other party to take over its contractual relationship with the executing entity. Accordingly, GCF requested copy of a written confirmation from the AE that the National Designated Authority (NDA) of Burundi has been informed of, and acknowledged, this deviation to the AMA and its implications, an express provision has been included in the term sheet to allow for such deviation from the AMA. This means that, subject to Board approval, in case the AE decides to discontinue project implementation, the GCF will not have recourse to take over the AE role or appoint another party to replace the AE, and the only alternative would be cancellation, without prejudice of other remedies available to GCF under the AMA.

66. In order to mitigate risk, it is recommended that any approval by the Board be made subject to the following conditions:



- (a) Delivery by the AE to the GCF of a certificate or legal opinion within 120 days of the Board approval confirming that it has obtained all its internal approvals; and
- (b) Signature of the funded activity agreement in a form and substance satisfactory to the Secretariat within 180 days from the date of Board approval or the date when all internal approvals by the AE have been obtained; and
- (c) Completion of legal due diligence to the satisfaction of the Secretariat.

Independent Technical Advisory Panel's assessment of SAP017

Proposal name:	Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi
Accredited entity:	International Fund for Agricultural Development (IFAD)
Country/(ies):	Burundi
Project/programme size:	Small (SAP)

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

Scale: N/A

1. Burundi is a small landlocked country in Africa. Agriculture is the dominant economic activity in the country, where about 90 per cent of the population finds employment in the allied sectors (e.g. crops, livestock and forestry). The country is also mountainous, consequently the gradients of the sloping landscape result in rainwater run-off through the undulating terrain.

2. The country has been facing climate change and its implications in recent decades. Both temperature and rainfall are subject to seasonal and spatial distribution. The Imbo zone in the west is the warmest zone, with an average temperature range of 23–25 °C; while the highlands in the Congo-Nile watershed are generally much colder (average temperature range 16–18 °C). The Imbo zone and the Tuzizi Plain in the north-east generally receive the least rainfall (below 900 mm/year), whereas the mountainous Congo-Nile watershed receives rainfall of over 1,600 mm/year. Total rainfall and average temperature of other areas of the country fall between these extreme values.

3. As a consequence of climate change, Burundi has already experienced an average temperature increase of 0.8 °C between 1930 and 2000. An in-depth study of temperature between 1989 and 2019 has shown that the mean temperature trends exhibit slight increases, with higher changes in the Moso basin. The largest increases were seen in the mean temperature of the coldest quarter, and in the mean annual temperature and mean temperature of the warmest quarter.

4. The country has also been experiencing changes in the duration of wet and dry seasons. The long dry season (between June and August) has extended and can now be considered to last from May to September. This has been associated with a shortening of the wet (rainy) season, which has been accompanied by an increase in sharp, intense spells of rainfall. Observational data of rainfall trends for 1989–2019 suggests that there has been a significantly high increase in precipitation in the wettest quarter and in the total annual precipitation. The precipitation changes are more pronounced in the Imbo basin. In a mountainous terrain with high slope gradient, run-off from such intense rainfall episodes causes soil erosion and even landslides. Moreover, higher than usual run-off often increases flood risk.

5. Drought is another phenomenon that affects crop agriculture and livestock rearing, particularly in drier parts of the country. With increasing surface temperatures and simultaneously declining rainfall during the drier season, drought intensity has been increasing in the drought susceptible regions of the country. This has been studied using standardized

precipitation and evapotranspiration index (SPEI) analysis and also by applying the Thornthwaite equation to long-term observation datasets.¹ The SPEI trends show that droughts have worsened over the observation years, starting in the 1960s. The analyses provide evidence that droughts are realities in the two target basins (the Imbo and Moso basins). Droughts have significant economic and social implications, especially in terms of crop agriculture and livestock management in the two basins.

6. Computer-generated models have been used to develop an understanding of likely future climate change: specifically, a regional climate model based on the Representative Concentration Pathway (RCP) 4.5 scenario, taking into consideration the time series of 1961–1990 as the baseline climatology. The modelling analysis is resolved for 2030s (i.e. the projection duration of 2021–2050). The output datasets were further analysed to examine future trends of the SPEI and drought, with the results relating to drought being further validated with downscaled Cordex datasets under the RCP 4.5 scenario. The analysis clearly indicates a significant increase in the occurrence of drought in the target basins over a comparable timeframe.

7. The dry season in both the basins is the most affected by changes in precipitation and temperature. A rapid change in drought is projected by multi-model mean values, showing that the current mild drought becomes severe and extreme leading up to the middle of the century. The change in SPEI could also lead to drastic modifications in the hydrology of the Imbo and Moso basins, which in turn might affect surface water availability. In addition, there will be increased run-off due to higher soil aridity and higher surface evaporation, resulting in much increased soil erosion.

8. The run-off data have also been used to study the occurrence of “10-year floods”, to assess flood risks in different parts of the country. The western region, which includes the Imbo basin, will be highly susceptible to floods, while runoff-induced erosion rates in the target areas are classified as severe (ranging from 50 to 200 tonnes per hectare per year), indicating that, with a climate-induced increase in sharp rainfall episodes in future, the steep slopes will be facing higher levels of erosion and occasional landslides. Moreover, the estimated future rate of erosion translates into a corresponding soil loss of more than 10 mm (depth) per year and the transport of 20,000 tonnes/km² soil per year. This high erosion rate indicates how the irrigation infrastructure downstream will suffer from excess sedimentation and sand casting. The impacts of climate change, observed through modelling, are likely to increase and will have an increasing and significantly detrimental effect on the livelihoods of poor people who are dependent on crop agriculture, animal husbandry and agroforestry. This warrants immediate actions to develop the adaptive capacity of poor people in the two target basins of Burundi. From the point of view of location targeting, the Imbo basin represents the most wet region, while the Moso basin represents the driest region. Therefore, the targeting for achieving impacts has been done judiciously. The proposed project is a modest first step to build the adaptive capacity of people and relevant institutions operating in the areas.

9. The project has three components: (1) improvement of soil and water management, including agroecological management and climate proofing to reduce damage; (2) capacity-building of stakeholders across all levels, which entails soil and water conservation, peer-to-peer learning opportunities and the formation of farmers’ organizations; and (3) development of an enabling environment where relevant institutions are provided with training and support

¹ Because of the recent war, most of the weather stations in the country have become inoperable resulting in interrupted time series of observation data. However, there are a few stations which survived the war and provide valuable insights into the climatology of the regions where they operate. The globally available data repositories also provide long-term observational data, although those are generally gridded over georeferenced space. All the different data sources have been accessed for the study of past climatology of Burundi for establishing the climate rationale of the project.

to strengthen their capacities to serve the population affected by climate change. The project concepts emanate from a past IFAD-financed project called PNSADR-IM², which targeted the same two basins. That 5-year project proved to be successful in rehabilitating land on the steep slopes of the two basins and also protecting about 12,000 hectares of watershed.

10. An estimated 240,000 direct beneficiaries will be served, 50 per cent of whom are women. Women's participation in agriculture in Burundi is significantly high, constituting about 40 per cent of the workforce in the agriculture sector. Although the proponents presented a conservative estimate of indirect beneficiaries of 333,540 people (50 per cent being women) by limiting the count to the two target basins, the technology transfer opportunities through the capacity-building efforts in the relevant organizations, including the extension services, could increase the indirect beneficiary base significantly. It is estimated that the overall project beneficiaries will include 153,280 households.

11. As a secondary benefit (not claimed under the GCF results areas), the project will result in a mitigation co-benefit of 2.88 million tonnes of CO₂ equivalent (MtCO₂eq) over the project lifespan (about 20 years). This will be achieved by means of establishing ridge afforestation and vegetation cover in a bid to address soil erosion. Such a mitigation potential from a country with the lowest per capita greenhouse gas emissions (ranked 188 out of 188 countries) is commendable. The project is under simplified approval process (SAP) arrangement and it will be a part of an ongoing IFAD-financed project titled PIPARV³. The proposed project will be implemented in four years since its inception. It has a budget of USD 31.72 million, where about USD 9.99 million is requested as GCF financing will full concessionality.

12. Taking into consideration the nature and limitation of an SAP project, the independent Technical Advisory Panel (TAP) finds the project's impact potential to be high.

1.2 Paradigm shift potential

Scale: N/A

13. An assessment of the three components and their respective subcomponents suggests that these have been carefully chosen to address the barriers that prevail in the target areas. The highest emphasis is given to component 1, which aims to enhance adaptive capacity by improving soil and water management. Under this component, best management practices will be adopted by means of agricultural adaptation, rainwater harvesting at the household level and by creating incentives for the farming communities so that they can participate in micro, small and medium-sized enterprises (MSME) and can play a greater role in the value chains that involve agricultural products. Individually, none of these elements of the project is innovative, as such. Moreover, as indicated above, many of the elements have been tested in earlier IFAD-financed projects. However, addressing both the upstream issues of vulnerabilities and the downstream issues through the adoption of an ecosystem-based adaptation approach appears to be a project-level innovative approach. The combination of sustainable water management in the upstream and safeguarding irrigation infrastructure to address climate-induced drought in the downstream is likely to result in a new paradigm of both risk reduction and resilience building. The theory of change presented in the funding proposal highlights the approach.

14. From a climatological perspective, the two target basins represent two climate extremes: while the Imbo basin is the wettest region and likely to be affected more by floods and soil erosion, the Moso basin is the driest and droughts are becoming increasingly pronounced. Elsewhere in the country, the effect of climate change will not likely to be as pronounced as in these two basins, at least in the near future (say, in the 2020s and 2030s). However, the project promises some replication potential in other parts of the country where

² National Programme for Food Security and Rural Development in Imbo and Moso (PNSADR-IM).

³ Agricultural Production Intensification and Vulnerability Reduction Project (PIPARV).

both the upstream and downstream issues are simultaneously operating and likely to be worsened towards the middle of the century. It is uncertain whether the scalability will remain valid in the near future because without external support the outlook for mobilizing national financing is rather low. Therefore, lack of ability to mobilize national financing could potentially limit the replication potential.

15. There is ample learning potential throughout the project activities. While the farmers, including women smallholder producers, will be trained to adopt adaptation techniques, the planned peer-to-peer training in the field through the participation of farmers' field schools (FFS) will enable farmers to gain confidence and replicate such adaptive actions. In many poor farming communities, organization of FFS is found extremely helpful for sharing good adaptive practices. As a capacity-building modality, the effectiveness of FFS is well documented and recognized. The project will allow extension service providers to receive training on climate change adaptation and on adaptation techniques, which will in turn help the extension service to offer subsequent training elsewhere, involving the farming communities. The overall component on improving the institutional enabling environment will help relevant institutions to build their capacity so that they can cater for the needs of farming communities to adapt to climate change. However, the project does not elaborate much about the potential modalities to acquire knowledge and collate lessons learned so that the future messaging on adaptation becomes easier. This appears a modest lack in the overall approach to deliver community-level adaptation.

16. As indicated above, the project will contribute to the creation of an enabling environment. The project intends to analyse the enabling policy and legislative framework of the country, identify prevailing gaps and carrying out a study to identify current barriers. This analysis would have been an ideal ingredient to formulate the project so that effective measures could have been considered for the project to pursue. However, the study could still be useful in allowing the relevant institutions to involve stakeholders in devising pathways to address the policy issues. Once such a study has been completed, it is expected that the relevant institutions will use the proposed policy forum to bring the issues to the policy-making table and find solutions. The independent TAP emphasizes the need for a knowledge management subcomponent, which may be useful in documenting the process and informing the national stakeholders.

17. Introducing of entrepreneurship to the farmers and inspiring them, including women farmers, to transform themselves into future entrepreneurs by means of incentivizing MSMEs may be a game changer for only a few beneficiaries. However, if even small proportion of the target beneficiaries find greater linkages with the private sector and manage to enhance their income through greater participation in the value chain of high-value agricultural products, it would be worthwhile to support such targeted activities. Therefore, the project has a modest approach to market development and transformation, although at a micro level.

18. The project will consider an ecosystem-based adaptation pathway, involving both the upstream and downstream simultaneously. Assuming that the upstream watershed management and slope protection activities become successful, the resulting decrease in sedimentation of the irrigation infrastructure will enhance the confidence of those farmers willing to invest in such technologies to address drought. Therefore, the project will essentially reduce the risks of investment in adaptive technologies, which will have significant economic implications in future.

19. The independent TAP finds the potential in this respect to be medium-high.

1.3 Sustainable development potential

Scale: N/A

20. The project will directly contribute to the following sustainable development goals (SDG):

- (a) SDG 2 (zero hunger) – by reducing the adverse effects of climate change induced hazards, thereby safeguarding crop productivity and augmenting production in the longer run by providing water, especially for rural smallholder producers, including women;
- (b) SDG 5 (gender equity) – by helping smallholder farmers, including women farmers, to obtain rainwater harvesters so that drought may be addressed and by increasing incentives for the development of MSMEs so that women may participate in green business;
- (c) SDG 6 (sustainable management of water) – by engaging relevant stakeholders to establish community water users associations and formulate area-wide sustainable landscape and water management plans and subsequent utilization of water to address droughts; and
- (d) SDG 13 (enhanced climate action) – by addressing climate change induced drought, flood and landslide management and also by helping to develop an enabling environment with regard to soil and water conservation.

21. In addition to the above-mentioned direct contributions, the project will indirectly contribute to SDG 1 (no poverty) by engaging with poor smallholders (including women) to help them adopt agroecological management best practices and by increasing incentives for the development of MSMEs so that the poor producers can overcome poverty in the longer run. An indirect contribution is also expected through SDG 15 (use of terrestrial ecosystems, manage forests and combat desertification), through the ridge afforestation that is to be promoted for reducing the risk of landslides and the watersheds that are projected to halt land degradation. Although the project is capable of contributing to the above-mentioned SDGs, the total contribution will be limited in extent because of the small provisions created under an SAP project.

22. **Economic co-benefits:** The project will have significant economic contribution in the form of higher returns from agricultural production for the smallholder households and because of the creation of opportunities for producers to emerge as entrepreneurs through the promotion of MSMEs. It is anticipated that the producers will gain from the trading of high-value crops such as fruits, vegetables and animal feed. It is also expected that the extra income from the marketing of excess produce will be useful in addressing poverty, especially among poor households.

23. **Social co-benefits:** The greatest social contribution will be made in the form of increasing food security simply by safeguarding production from climate change induced hazards. The project is expected to contribute to greater intra-household food distribution, which in turn will positively affect the nutritional status of households that lack adequate food. The peer-to-peer learning opportunities for the promotion of agroecological management best practices involving farming households will contribute to community bonding. The project anticipates that at least 15 per cent of the beneficiaries will be local youth, who will be “change makers” in promoting adaptation in future within their localities. The presence of community-based knowledge generally helps strengthen community bonding.

24. **Environmental co-benefits:** The project directly contributes to the protection of lands by addressing soil erosion. The project attempts to establish ecosystem-based adaptation through slope stabilization by introducing ridge afforestation in the upstream and simultaneously removing silts from downstream irrigation infrastructure. This will positively contribute to environmental harmony between the upstream catchment and the downstream areas.

25. In addition to the above environmental contributions, the project will promote afforestation, which will enable the communities to restore forest environments and gain from forestry-related products. Moreover, with forest restoration, there will be indirect benefits from forest biodiversity.

26. **Gender co-benefits:** Gender-responsive resilience building is at the core of the project, which is why at least 50 per cent of the beneficiaries are women producers. Apart from the gains from agricultural and forestry outcomes, women will particularly benefit from capacity-building efforts and through their participation in the MSME development and subsequent value chains.

27. Considering the various potential co-benefits in economic, social and environmental aspects, the independent TAP is of opinion that the project will have high sustainable development potential.

1.4 Needs of the recipient

Scale: N/A

28. Burundi is vulnerable to climate change. Because of the seasonal distribution of rainfall, the country receives relatively higher rainfall in the wet season, but much less in the dry season. The livelihoods of the majority of the population depend upon rain-fed agriculture, so climate change induced changes in available rainfall and subsequent run-off make the food production system vulnerable. The low capacities to withstand climatic shocks to food production and people's livelihoods exacerbate the vulnerability at both the community and national level. Burundi is ranked 185 out of 189 countries in Human Development Index, which not only indicates the very low state of human development, it also illustrates the inadequate capacity of the country to address climate-related vulnerabilities.

29. The highly seasonal nature of key climate parameters leads to the frequent occurrence of hazards such as floods and droughts. Both these seasonal phenomena adversely affect production of crops. Given the mountainous terrains in the country, high-intensity rainfall episodes and flooding also trigger erosion and occasional landslides, which in turn erode top soils in the upstream catchments and subsequently cause sand casting in the downstream. Both these secondary effects have cascading adverse impacts on field-based crop agriculture in the downstream. Another severe impact is experienced when the irrigation infrastructure intended to address droughts becomes clogged in the downstream owing to sediment deposition. This again affects crop production by making irrigation infrastructure inoperable. Since agriculture is the primary economic sector, providing 90 per cent of employment, climate change induced impacts are already affecting agriculture-based livelihoods and food security of farming communities in Burundi. Agricultural productivity in Burundi is already among the lowest in the region, and the increase in extreme floods and droughts is expected to cause a reduction in yield of 5–25 per cent in the coming decades. This indicates how important it is to address the issues and the sense of urgency regarding the needs of the recipients.

30. As set out in the funding proposal, almost all the interventions needed are planned to produce public goods and services, which are not likely to be financed by the private sector. Burundi is a least developed country in Africa. The debt burden of Burundi has been very high in recent years (65 per cent of gross domestic product in 2019). Therefore, public funds are not available to be mobilized to address various essential needs in the social and economic sectors of the country. The Government of Burundi has limited access to capital and cannot finance such a project without external assistance. On the contrary, GCF is better suited to extend its assistance to reduce vulnerability by addressing the core issues, create opportunities to ensure food security, instill financial adaptive capacity and strengthen institutional capacity to deliver various essential services.

31. In view of the above discussions, the independent TAP's considers the needs of the recipient to be high.

1.5 Country ownership

Scale: N/A

32. In the past, Burundi has highlighted the need for considering adaptation measures by developing a national adaptation plan of action, a national climate change policy and a national strategy and action plan on climate change. The country took part in global efforts and joined other nations in the Paris Agreement. In this pursuit, Burundi pronounced its nationally determined contribution (NDC) to the Paris Agreement. The NDC was built on the earlier policies and strategies on climate change, keeping its primary focus on adaptation. This project fully aligns with the NDC by prioritizing adaptation that involves human and institutional capacity-building and technology transfer.

33. In addition to maintaining conformity with climate change policies, the project is also aligned with several other policies on protecting and enhancing agricultural productivity. The SAP project is in alignment with the national water resources management policy and action plan, and the Water Code (law 1/02 of 26 March 2012), which prioritizes water control for increasing agricultural and livestock productivity. The project is expected to contribute to effective implementation of such policies and legal instruments.

34. The independent TAP finds strong relevance of the project with past and ongoing projects. The identification of the project components and outcomes took place during the mid-term review of the PNSADR-IM project, implemented earlier with a target to address issues of the two specific basins. Therefore, the design of the project has been in conformity with the core issues that are relevant for the specific areas. The design of the project has been further strengthened by organizing extensive consultations. Such consultations not only kept the national designated authority (NDA) aware of the project, but also contributed to finding sources of co-financing. The consultation processes involved potential target beneficiaries, local-level administration, local institutions, representatives of women/women organizations, civil society organizations and non-governmental organizations.

35. IFAD is the accredited entity (AE) for the project. IFAD has extensive experience in Burundi on enhancing agricultural productivity. The AE has a strong presence in the country, particularly in agricultural development. It also maintains a healthy institutional relationship involving relevant national institutions, as well as various development partners that are working in the country. IFAD has taken part in the processes of identification of the project, and actively took part in inclusion of recommendations generated during the consultation processes and in the designing of the project. IFAD has kept the NDA informed regarding the development of the project and obtained a no-objection letter from the NDA.

36. Burundi is the executing entity, through its Ministry of Finance and the Ministry of Environment, Agriculture and Livestock. The latter is the authority responsible for addressing issues regarding natural environment and agricultural production, and has been involved in implementing a number of projects to boost agricultural production throughout the country, including in the two target basins. The former is generally involved in externally funded projects. Therefore, the executing agencies are the most appropriate ones, the collective experience of which will be beneficial to delivering the project activities. Moreover, IFAD has previous working experiences involving the two executing entities.

37. In view of the above, the independent TAP considers that the country ownership is high.

1.6 Efficiency and effectiveness

Scale: N/A

38. This SAP project will be implemented over a period of about 4 years with a budget of USD 31.71 million. The proponent requests a GCF grant contribution of USD 9.99 million, which constitutes about 31 per cent of the budget. There is a significant amount of co-financing, which indicates a GCF grant to co-financing ratio of 1:2.

39. Since this project is proposed to GCF under the SAP, it is not mandatory to provide analyses regarding economic and/or financial viability. However, the proponents analysed conventional economic performance indicators such as economic rate of return and net present value of the project. At a 15 per cent discount rate, the financial internal rate of return is estimated to be 18 per cent and the net present value is USD 2.20 million. In financial terms, the results suggest that the project is fairly robust. With a stringent discount rate of 9 per cent, the economic internal rate of return is estimated at 12 per cent, with a positive economic net present value of USD 3.09 million. The cost-benefit ratios in both analyses indicate greater benefits than costs, which further suggests that the project's economic returns are likely to be robust.

40. Even without the encouraging analytical results on economic performance of the project, the independent TAP considers that the efforts towards removal of silt from irrigation infrastructure will help extend the economic life of such infrastructure by USD 57 million. This clearly indicates that the project is effective on economic grounds.

41. By virtue of ridge afforestation in the mountains to check landslides, the project will result in a mitigation co-benefit of 2.88 MtCO₂eq over a lifespan of about 20 years. Project cost estimates indicate that the cost per tCO₂eq is USD 11.01 and the GCF cost per tCO₂eq is USD 3.47. The latter value is lower than the average cost paid by GCF on results-based payment for REDD-plus projects, which indicates the efficiency of financing in a project such as this. By applying a globally acceptable rate for sequestration of carbon of USD 5 per tCO₂eq, the project's valuation from the forest-related gains alone appears to be USD 14.4 million, which outweighs the investment made by GCF once the project is approved. Therefore, the independent TAP considers that the project is both cost-effective and financially efficient.

42. Since the project is embedded within an ongoing IFAD-financed project, the use of the SAP is particularly beneficial because of its much reduced need for maintaining a separate project management unit. This has resulted in a significantly low transaction cost compared with many other SAP projects, thereby making the project particularly efficient.

43. The techniques that are to be employed for reducing landslides and removing silts from clogged irrigation infrastructure are among the global best practices for these purposes. In fact, a number of GCF-approved projects have also relied on similar adaptation and capacity-building techniques. Therefore, the technological efficiency of the project is also high.

44. In view of the above, the independent TAP considers that the project's effectiveness and efficiency is high.

II. Overall remarks from the independent Technical Advisory Panel

45. The independent TAP supports the SAP proposal and recommends it for approval of the GCF Board.

46. The independent TAP recommends the following:

- (a) The AE takes specific measures to strengthen the knowledge management and outreach elements of the project under component 3 so that an informed policy dialogue may be organized and adaptive capacity-building efforts are also strengthened by collating lessons learned and documentation of the useful practices; and



- (b) The AE carries out a robust baseline assessment so that strong results-based monitoring is possible, on the basis of the indicators suggested in the proposal.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (SAP017)

Proposal name:	Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi
Accredited entity:	International Fund for Agricultural Development (IFAD)
Country/(ies):	Burundi
Project/programme size:	Small (SAP)

Impact potential
The AE acknowledges with appreciation the findings from iTAP of the high impact potential of the project.
Paradigm shift potential
During project implementation the AE will strengthen the knowledge management component to collate lessons learnt and improve future messaging on adaptation. The AE will ensure the documentation of processes and informing national stakeholders are given particular attention during the project implementation period.
Sustainable development potential
The AE acknowledges with appreciation the iTAP findings of the project having high sustainable development potential.
Needs of the recipient
The AE acknowledges with appreciation iTAP's opinion that the needs of the recipient are high.
Country ownership
The AE acknowledges with appreciation iTAP's opinion of the country ownership of the project being high.
Efficiency and effectiveness
The AE acknowledges with appreciation iTAP's findings that the efficiency and effectiveness of the project is high.

Overall remarks from the independent Technical Advisory Panel:

The AE acknowledges with appreciation the high scoring from iTAP on impact potential, sustainable development potential, needs of the recipient, country ownership, efficiency and effectiveness.

During project implementation the AE will strengthen the knowledge management and outreach aspects of the project to organize informed policy dialogue and strengthen adaptive capacity building efforts. Specific measures will be put in place to collate lessons learnt and document useful practices.

The AE will conduct a robust baseline to enable strong results based monitoring involving the proposed indicators.

Annex 4: Gender and Youth Assessment and Action Plan

ACRONYMS

AIC	Intelligent agriculture in the face of climate change
GAP	Provincial Bureau of Agriculture, Livestock and Environment
CDCC	Communal Community Development Committee
DCC	Hill Development Committee
CEP	Farm School Field
DCP	Project convention document
RFP	Participatory diagnosis
EAF	Family farm operation
TDM	Land management
HIMO	High intensity of May, labour
PCDC	Communal Community Development Plan
PNSADRM	Imbo and Moso National Food Security Programme

INTRODUCTION

1. The Gender Assessment aims to provide an overview of gender issues in Burundi for informing the design of the project titled "Climate proofing food production investment in Imbo and Moso basins in the Republic of Burundi". The project is implemented through three components: (i) Improvement of soil and water management infrastructures in the basins, (ii) Capacity building of actors across all levels on best agro-ecosystem management practices for enhanced soil and water conservation and (iii) Development of an enabling environment for the adoption of policies and practices for water and soil conservation. The Gender Assessment also addresses gender inequalities and identifies opportunities that could be seized through the project activities to fill gender gaps in climate proofing infrastructures built in the both basins. The Gender Assessment is informed by the gender strategy common to IFAD funded projects in Burundi, the gender assessment in Moso and Imbo basins and consultations with grassroots organizations during the project design and the national workshop¹. In addition to the Gender Assessment, a Gender Action Plan has been proposed to set the tone on how gender issues resulting from the assessment can be addressed through the implementation of project activities.

Gender Inequalities

Demography

2. Burundi's population is currently estimated at 13.2 million inhabitants with women accounting for 50.9%. The population of Burundi is young with 63% of the population under 25 years of age in 2015 (ISTEEBU 2017). Only 30% of young people have access to secondary school and 7% of these young people will have access to higher education, with only 6% who will find employment in the formal sector. Women's fertility rate has declined over the years and now stands at 5.4 children per woman. Burundi has a GII value of 0.520, ranking it 124 out of 162 countries in the 2018 index. For every 100,000 live births, 712.0 women die from pregnancy-related causes and the adolescent birth rate is 55.6 births per 1,000 women of ages 15-19. The country has the second highest population density of 435 people per sq of land area just behind Rwanda. This relatively small country has a high population growth rate, and as the population grows, the amount of fertile land available for agriculture is decreasing. This is a major challenge for a country where 90% of the population lives mainly from subsistence farming, considerably increasing the pressure on natural resources. The increased pressure on land has resulted in the continued fragmentation and shrinking of land capital per family farm: the average area per household fell from 1.04 ha in 1973 to 0.5 ha in 2009 and continues to decline. In addition, the land fragmentation has led to the overexploitation of natural resources, with a worsening of the erosion phenomena leading to the degradation of soil fertility and the exploitation of marginalized lands.

Education

3. The education sector has become an important part of national investment particularly in view of the introduction of free tuition in education as of 2005 primary. Since 2010, Burundi has begun a reform of its education system, which has led, in particular, to the creation of a nine-year basic education cycle, aimed at (i) ensuring free and equal access, for both girls and boys in basic education; (ii) increase the retention rate of students; and (iii) improve teaching techniques. The progress made in this area has enabled Burundi to achieve, by 2015, MDG 2 on universal primary education with a gross enrolment ratio by more than 119% in 2016²⁶. However, a number of bottlenecks remain, whether at the level of equal access to and quality of education provided. Drop-out rates remain high and many vulnerable children, especially young mothers, children living with disabilities, children with disabilities, children with internally displaced persons and returnees, remain excluded from the school system.

¹ The Collective of Women's Associations and NGOs of Burundi (CAFOD), a framework for exchange and consultation on gender issues are always consulted in all IFAD design processes and strategies (Gender strategy, Exit strategy etc.)

Poverty situation

1. Most of the Burundian population lives in poverty, especially in rural areas. Burundi's HDI value for 2018 is 0.423, which put the country in the low human development category (185 out of 189 countries)². The 2018 female HDI value for Burundi is 0.422 in contrast with 0.420 for males. According to the World Food Programme, nearly 75% of Burundians live below the poverty line. Chronic malnutrition rate for children under 5 years old is estimated at 56% in 2015 and the acute malnutrition rate at 10% in 2017. The level of food insecurity is almost twice as high as the average for sub-Saharan African countries, with about 1.77 million people in need of humanitarian assistance in 2019 according to the Humanitarian Response Plan (HRP). Climatic hazards and the resurgence of epidemics often aggravate this situation. Moreover, agriculture, which is the main source of employment does not generate enough income and contributes only 40% of GDP. Access to water and sanitation remains very low and less than 5% of the population has access to electricity (including 52.1% of urban households and 2% of rural households). Since April 2015, Burundi has been experiencing a socio-political crisis that has led to both internal and external population displacements with 450,000 Burundian refugees in neighbouring countries (UNCHR, January 2018). The increase in the prices of certain foodstuffs, the fall in tax revenues, the suspension of international aid have led to a worrying situation, compounded by climate disasters. From September 2015 to October 2019, more than 4 million people were affected by heavy or torrential rains, water deficits, high winds, floods and landslides related to climate change. Most recently, during the night of 30 April to 1 May 2020, 10 thousand households were affected by floods and landslides. floods caused by the overflow of the Rusizi River.

Sector Gender Issues.

Despite the progress observed in women's participation in political life (they hold 32% of the seats in the National Assembly, 42% in the Senate and occupy 33.6% of the positions at the provincial level and 16% of the positions at the national level), at the communal level as well as at the normative level, gender inequalities in Burundi remain significant. The country ranked 108th on the Gender Inequality Index (GII)¹⁴. Women suffer, in fact, from multiple and intersecting forms of discrimination as girls, young women, older women, heads of household, and household, indigenous Batwa women, women living with HIV/AIDS, disabled women, migrants, refugees, returnees, internally displaced persons and those at risk of statelessness. They are disproportionately affected by the poverty and face many obstacles in accessing land (only 17.7% of women have access to land), infrastructure and services, information, new technologies, vocational training, decent work and social protection. Gender-based violence remains a major concern: in 2016, it was estimated that 36% of women would be victims of gender-based violence, including 10% during pregnancy and 23% of women of childbearing age have also been victims of sexual abuse. Through the Gender Action Learning System (GALS), all IFAD funded projects including PIPARV-B provide legal, judicial and psychosocial support and judicial accompaniment at the communal level for victims of gender-based violence³. A network of women leaders will be formed to support women at the community level and to refer women to the CDFCs when necessary. The SAP project will apply the GALS approach and scale up in the Imbo and Moso basins.

2. Women play a major role in Burundi's national economy and represent 55.2% of the workforce. They are particularly active in the agricultural sector, which provides for 90% of food production and 90% of the country's export. Women make up 51.56% of the workforce in agriculture and manage 22% of the farms making then heavily reliance on environment-related livelihoods in subsistence agriculture.
3. There are strong gender disparities in agriculture observed mainly in terms of access but especially in the control of productive resources, access to knowledge, information and training, access to structured organizations of producers, and access to agricultural and rural finance. The literacy rate for women is 54%, compared to 54% for men. Women have extremely limited access to the formal financial sector due to lack of collaterals though hence their access to credit is mainly through the solidarity guarantee groups (GCS). Recent data from the Emergency food security assessment survey (WFP 2017) 92 show that male-

² Burundi's 2018 HDI of 0.423 is below the average of 0.507 for countries in the low human development group and below the average of 0.541 for countries in Sub-Saharan Africa

³ PIPARV-B is expected to provide support to 1800 women.

headed households (79% versus 21% in women) are better off in terms of household welfare indicators, as well as in terms of the food security indicators.

4. Burundi's social structure is patrilineal one, and male family members from the deceased's paternal line are privileged in terms of inheritance, according to customary law (ITEKA & FRIDE, 2011). "Under customary law in Burundi daughters do not inherit. According to the categories and order of inheritance, daughters are not considered to be legitimate children. Inheritance is the primary way to acquire land in Burundi. According to customary law, land is inherited through the male member of the paternal line (Action Aid, 2016). Additionally, husbands are customarily the owner and administrator of land and property; while women are usually allowed to use land, they have no control over it (Action Aid, 2016).
5. The gendered division of labour within households generates different energy needs. Given the traditional division of labour in rural areas, women and girls bear the main burden of collecting biomass fuels such as charcoal, wood and agricultural waste. Fuelwood is the main energy source for about 99 percent of rural households. This has negative effects on their health and their well-being. In fact, only 47 percent of urban population have access to energy, while it is only 1 percent for the rural population.
6. The population of Burundi is young with 63% of the population under 25 years of age in 2015 (ISTEEBU 2017). Only 30% of young people have access to secondary school and 7% of these young people will have access to higher education, with only 6% who will find employment in the formal sector. More than 75% of Burundian youth live in rural areas, and most of them are not unemployed per se, but "underemployed" in various rural activities with meagre incomes.
7. All these disparities resulting from the social positions of women within the family and the community are aggravated by the effects of climate change on the very factors that are most essential for protecting women's means of subsistence (food, water and energy supply). Hence, women in Burundi are differently affected by climate change because of the different roles they play in society and their differentiated access to social, economic and physical resources. In addition, Burundians high fertility rate combined with social norms and family responsibilities are likely to have negative impacts on the time than women can devote to improve their well-being (better education, health and nutritional status, employment and income generation) at the expense of time devoted their various responsibilities. Many of these issues were confirmed during the focus group discussion during the project design.

Policy and legal framework to reduce Gender Inequalities

8. Burundi has ratified the Universal Declaration of Human Rights, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and United Nations resolution 1325 on the promotion of positive discrimination mechanisms and measures to correct all these imbalances and increase women's participation in the decision-making process at all levels, among other international texts relating to gender equality.
9. The National Constitution, revised in 2018, reaffirms the principles of equality and non-discrimination (art. 19). Articles 13 and 22 guarantee gender equality. The GoB has also put in place measures to protect women through Article 126 of the Family Code which stipulates that: "No spouse may, without the consent of the other, (i) alienate or encumber with real rights the immovable property or holdings dependent on the conjugal community, nor dispose of such rights or property free of charge, even for the establishment of children; (ii) acquire for consideration property or any other real right relating to immovable property or holdings dependent on the conjugal community. The following are deemed to be dependent on the conjugal community unless proven otherwise by a legal, conventional or customary provision: land acquired by devolution of property; a house used as a dwelling or means of housing; a farm which is the object or the fruit of the joint work of the spouses. »
10. Burundi has a national gender policy covering the period 2012-2025, based on three issues, eight challenges and three principles with six strategic orientations: (1) Improvement of the social and cultural status of women in the family and in society; (2) Strengthening of equitable access by women, men and adolescents to basic social services; (3) Equitable promotion of the potential and position of women and men in the economy; (4) Promotion of the equitable exercise of the rights and duties of women and men; (5) Equitable promotion of the participation of women and men in decision-making spheres and in peace and security building mechanisms; and (6) Strengthening the response capacity of the institutional mechanisms for the implementation of the PNG.
11. The policy is supposed to be enforced and monitored by the Ministry of National Solidarity, Human Rights and Gender which has established gender units in sectoral ministries and through the Family and Community Development Centres (CDFCs) in all the provinces. The human resources of the CDFCs are made up of provincial social coordinators and social workers.

12. The coordination teams rely on hillside helpers (community leaders) to disseminate the ministry's messages and support citizens through their households. Women hold 45% of the 62 regional coordination posts, 61% of the 130 social worker posts and 88% of the 4,363 community leaders.
13. Burundi has set up a platform named "Groupe de Plaidoyer Agricole" (GPA) an informal but recognized body at the national level with local ramifications to settle all disputes and conflicts at community level on agricultural related matters. Land related issues are settled by another platform called "Synergie Foncière" in collaboration with GPA. Both platforms collaborate with the administrative authorities on mediations.
14. Women also have access to these platforms to settle disputes and land related issues but could also if necessary take the issue to the **Ombudsman**. If an agreeable settlement is not found, the matter will be escalated to the judicial authorities (e.g. the administrative court in case of expropriation for public utility (construction of a school, hospital, etc.).
15. In case of confiscation, the procedure remains the same, the claimant has recourse to the administrative hierarchy for mediation, but in case of dissatisfaction, the claimant has recourse to the judicial authorities, or to the National Commission for Land and Other Property (CNTB) at the first degree (at the provincial level) and if necessary, at the second degree (at the national level), there is even a special court for land and other property.)

Overcoming Gender Issues

A gender approach would need to be taken when addressing some key constraints to food and nutrition security:

- Low rural productivity
- Inadequate human capital
- Women empowerment and increased access to resources

16. The beneficiaries of the project will therefore be mainly women and young involved in agricultural as farms heads or dependent. They will constitute 60% of which 30% will be young women. The remaining 40% will be beneficiaries over 35 years of age, half (20%) of whom will be women (wives, family heads, widowed, divorced or single). In both groups, beneficiaries will be identified from the outset in the farms they belong and will be supported for agricultural and non-agricultural activities to improve household food security and income.
17. The reference base will be farms with one or more farm lands in the marshes to be developed and whose catchment areas will be protected. All farms will be geo-referenced and their coordinated recorded including new land acquisitions and parcelling (including the reasons behind these such as young people starting or migrating).
18. It is expected that at the end of the project that i) 80% of the developed marshland will be protected and managed in a sustainable way compared to the current 40%, ii) reduction of at least 30% of the flooded area of marshes during rainy period, iii) Vegetation cover increased by 20 % and iv) farms with plots in marshes, watersheds and hills have sustainable incomes and food resources and make sustainable investments.
19. At inception, the project will update and complement PIPARV-B baseline to include data relevant to the project particularly women and youth situation, opportunities, constraints. The reference situation will combine documentary research, quantitative surveys and qualitative surveys based on the organisation of focus groups.

AMBITION, OBJECTIVES AND REQUIREMENTS.

20. The gender and youth action plan is based on the premise that, in order to increase the climate resilience of the most vulnerable family farms and protect investments in the marshes, it is necessary to involve women, the fraction most involved in agricultural production and young people of both sexes who are particularly open to innovation. The purpose of this action plan is to ensure that the beneficiaries of the project, particularly young people of both sexes and women, contribute to the achievement of the project's related benefits on the basis of their own interests. IFAD funded projects promote the Gender action learning system as a key gender equality and women's empowerment approach. GALS has proven to be a sustainable way to get women out of poverty. The SAP will also apply GALS to enable gender, inter-generational, girl-child-boy dialogue within the household to decide by consensus on livelihoods, climate responses, tasks and resource sharing. This tool also allows a better socio-economic participation of women in: (i) combating malnutrition (FARN/FAN approach); (ii) functional literacy; (iii) support for neo-literates in the creation and management of solidarity guarantee groups (GCS); (iv) legal support for

victims of gender-based violence; (v) reducing the drudgery of work through the promotion of improved stoves and rainwater collectors.

21. Its objective is to support resilience and development opportunities in Moso and Imbo basins through:
 - Equal opportunities for men, women and young people of both sexes to have access to the various benefits of the project;
 - The inclusion of all rural people who wish to undertake, particularly young people and women, the actions carried out;
 - Women benefit directly from the income they generate on family farms.
22. The implementation of the action plan will be assessed against three requirements:
 - Explicit targeting requirement: 50% of beneficiaries must be women and 60% of young people of both sexes.
 - Vigilance to avoid elite capture
 - Permanent monitoring on the progress towards equal opportunities between men and women and towards the promotion of young people beyond the ratios.
23. It will be implemented along four implementation axes to meet the requirements arising from the ambition and objectives defined.
 - Axis 1: Prerequisites for gender mainstreaming and the promotion of youth and the inclusion of marginalized groups
 - Axis 2: Strengthening of structures in charge of support, accompaniment and community representation structures.
 - Axis 3: Supporting the emergence of green companies.
 - Axis 4: Knowledge management.

IMPLEMENTATION AXIS 1: PREREQUISITES FOR GENDER MAINSTREAMING AND THE PROMOTION OF YOUTH AND THE INCLUSION OF MARGINALIZED GROUPS

24. Participatory management plans are the guides for adaptation to climate change at in communes housing the catchment areas overlooking the marshes eligible for development or rehabilitation. The participatory community development plans will start after the awareness raising and sensitization sessions carried out by the PNSADR-IM (and soon PIPARV-B) towards public and private service providers to the communities and the capacity building of local institutions set up and elected by communities.
25. During these information sessions, the main principles of gender equity, promotion of young people, social inclusion by taking into account the poorest strata and excluded minorities such as the Twa, will be clearly explained and the principle of deepening them by putting them into practice. This will allow to spread information and set expectation before the elaboration of participatory communal development plans to all actors on the hills surrounding the catchment areas overlooking the marshes eligible for development or rehabilitation. The plans will cover interventions both on water and soil under the responsibility of communes and concerned family farms. The actions planned for family farms will be detailed and the expected earnings for their members according to their gender and age detailed in terms of: (i) sustainable increases in agricultural productivity and income; (ii) adaptation and resilience to the impacts of climate change; and (iii) reduction of GHG emissions and increased carbon sequestration.
26. During these session, the information on the Project's approaches to climate change adaptation, and its guiding principles (i) the explicit targeting of beneficiaries (including Twa and Landless), (ii) vigilance on distortions and (iii) monitoring the progress towards equal opportunities will be clearly stated.
27. Thus, implementation axis 1 prepares the basis for the ownership of climate change actions by communities and municipal administrations.

The expected results are:

- The targeted communes are well informed about the Project's climate change projects, its objectives, its intervention modalities, the share of women and young people of both sexes among the beneficiaries and the requirement to include landless families and Twa etc.
- In the selected municipalities, the hills housing the catchment areas, marshes and access roads are well informed about the public and private investment actions in which they are involved.
- On the targeted hills, the CDCs, the different segments of the population, the hillside organizations understand the opportunities offered by the PNSADR-IM for family farms, for their members according to their gender and age, cooperatives, etc. ,

- In particular, women and young people understand that they are specifically targeted and eligible for all activities if they meet the criteria.
- Women and young people in particular understand that they can undertake alone or through groups;
- All, especially women and young people, understand that the initiators of green businesses that are financed are supported

IMPLEMENTATION AXIS 2: STRENGTHENING THE STRUCTURES IN CHARGE OF SUPPORTING, ACCOMPANYING AND REPRESENTING COMMUNITIES

28. In each targeted commune, the Project will support the development of participatory development plans based on public investment by the communes and private investment by citizens willing to undertake, to stimulate the adoption of practices and technologies that contribute to the triple gain of the climate smart agriculture.
29. Public investments by municipalities will enable individuals to undertake profitable economic activities while meeting the three gains of the CSA: increasing productivity and production; strengthening the resilience of production systems in the face of climate change; and reducing GHG emissions. Public investments also facilitate market access and the promotion of green businesses through cooperatives.
30. Implementation axis 2 is geared to support to different specific targets: (i) women and youth, (iii) vulnerable family farms, (ii) producers who adopt climate change adaptation practices and technologies while contributing to the protection of wetlands. Given that the Government of Burundi has policies to ensure farm resilience strategies which are poorly disseminated, the project to educate and disseminate their contents to two groups:

Training of elected officials

- At the commune level, strengthening the capacity of communes to adapt public policies and regulations, integrate them into their PCDC and supervise their implementation;
 - Municipal administrators, advisors and advisory councils (CCDC and CDC) will receive the necessary training to understand public policies related to climate change, water and soil conservation and to master legal issues related to water and soil.
 - They will then be able to supervise the development of participatory development plans, the implementation of which will be carried out by the hill communities with the participation of the CDC.
31. All the members of the different structures will be trained in the 16 municipalities. Women constitute 30% of the members of the CDC, CCDC and communal councils. Young people, even if data are not available, should exceed this ratio. The project will work with the municipalities through the CDCs on the hills. This intervention logic is in line with IFAD's approach, which works primarily at the CDC level to directly reach the final target family farms of the projects and programmes it supports.

Training of extension workers

32. Extension workers are recruited from hillside communities and are responsible for outreach on the hills. Together with the extension of the DPEAE (communal offices of the Ministry of Environment, Agriculture and Livestock) they will be trained or retrained in SLM and soil and water conservation practices to ensure that they have the necessary skills to pass on the knowledge to farmers.

Participatory design of watershed management plans

33. The participatory watershed management plans are implemented in the hills overlooking the watersheds adjacent to the marshes. CDCs are responsible for watershed treatment and outside the hills, the municipality is directly involved in the treatment of critical areas.
34. Among the catchment areas supplying the various marshes planned for development, two are located outside the provinces of the PNSADR-IM: the municipality of Rutovu in Bururi province discharges its waters into the Musasa and Cunda marshes with enormous damage (destruction of structures, devastation of crops and sometimes death of farmers). The Rumpugwe marsh in the commune of Ruyigi receives some water from Tanzania which does not require any special treatment. Thus 16 communes in Burundi, including one in Bururi, are directly linked to the areas on which the Project must work. The recent flooding and landslides have affected the imbo basin as the Rusizi overflowed.

35. EWE BURUNDI URAMBAYE reforestation project⁴ funded by the GoB is being implemented and provides a favourable framework for the project's deployment. Partnerships could be developed for the intervention in the commune of Rutovu in the Bururi province.
36. The project will support the development of 16 participatory communal land use plans to be implemented in the watersheds from the ridges in 14 communes. Extension agents will be strengthened to supervise implementation and monitor slope protection plans.
37. These interventions will mainly be carried out by population living on the hills through labour-intensive work (HIMO) or cash for work. Women and young people are already very present in cash for work and will be targeted. The project will work with particular attention to the recruitment of members of landless family farms and Twa farms. Without setting a ratio, the mobilization of the Twa and landless (about 27% of the agricultural population according to the PNSADIRIM DCP) will be a project performance criteria.
38. Seeds and plant material of forest and agro-forestry species will be collected and certified by the relevant public structures. Women, due to their strong involvement in production, as well as young people, will be highly solicited for the production of seeds and plant material.

Targeting of women and youth

39. The process of developing participatory management plans begins with updating the diagnosis of the PCDCs in terms of expected gains. The baseline or reference situation will be made by the inhabitants of the targeted hills. It should allow (i) the description and evaluation of the economic activities of the targeted hills, and the involvement of men (including youth) and women (including youth) in agricultural and non-agricultural activities (ii) the description of vulnerability criteria and the classification of family farms by wealth level, (iii) the decision-making process within the farm in the definition of production strategies, food and income control etc.
40. The description and evaluation of economic activities on the hills makes it possible to assess the activities in which men (including young people) and women (including young people) are involved. Participatory diagnostics (PD) should provide the following information:
 - A description of traditional environmental resource management and the actors involved by gender and age group;
 - An assessment of the income generated by the extraction of natural resources and their place in the income of family farms;
 - An analysis of the economic activities of the family farm members by gender and age;
 - A qualitative classification of the income generated by sub-sector (agriculture, livestock, fisheries, forestry, crafts, etc.);
 - The sectors and segments of sectors where women and young people are generally found.

Targeting Twa and vulnerable households

41. The description of the reference situation for the preparation of communal development plans will also make it possible to update the concepts used on the hills to (i) define vulnerability and marginalisation, (ii) classify of family farm by wealth level and the criteria used for this (land, livestock, non-agricultural activities, etc.). These results will update those already identified by the projects and which have established a consensus on the principle of participatory targeting of vulnerable FAE.

Identification of sites based on the level of fragility

42. The description of the different sites according to the types of intervention will be specified: the sites on use, the sites not on use, the levels of degradation and changes over time, the types of intervention and the support already received. It is during the elaboration of participatory development plans that sites will be classified according to the degree of degradation and the interventions recommended by the populations. Traditional resilience practices will also be described.

IMPLEMENTATION AXIS 3: SUPPORTING THE EMERGENCE OF GREEN COMPANIES

43. This axis is oriented towards family farms to adopt SLM practices on hills, basins and marshes and water conservation practices in their households. This axis concerns the private domain of producers and encourages them to understand the need to conserve soil and water and to adopt practices on their farms and adapt them to the agro-ecological conditions of their land. Three groups of activities are promoted:

Learning for smallholder farmers

⁴ <http://www.ejoheza.org/?fr/at137>

44. Producers are trained on best practices in SLM adapted to their locality water and soil conservation conditions through different types of learning: (i) the promotion of lead farmer trainers chosen by their peers for their commitment and trained in SLM practices, who multiply the knowledge acquired from their peers; (ii) FFS combined with exchange visits for which IFAD-supported projects have a very rich experience; (iii) the training of young people in agricultural schools; and (iv) the construction and management of water and soil conservation structures on demonstration farms.

Support for micro, small and medium-sized rural enterprises

45. This will happen in forest and agro-forestry nurseries; farmers' cooperative enterprises for access to markets for agricultural products best standards; Local craftsmen's enterprises in the repair of subsidized water collection facilities at the farm level.

Support to green innovation

46. Following a contest at hill level, green innovations will be rewarded on the basis of criteria of ecosystem preservation, strengthening climate resilience and as a means of subsistence for the innovator. The project will ensure the incubation of award-winning companies to refine innovations, test them for market launch and mentor innovative entrepreneurs in the development of the company.

IMPLEMENTATION AXIS 4: KNOWLEDGE MANAGEMENT

47. Knowledge management will be an intersect feature of the project. Building on IFAD funded project knowledge management strategy and activities. Key KM will be documented every year and learning routes will be promoted among provinces. In addition, a self-assessment on equal opportunities will be carried out yearly. PIPARV-B and PNSADIRIM have a dedicated gender specialist who will also cover the SAP project gender action plan.

1. **SUMMARY TABLE**

Expected results	Activities	Means
Implementation axis 1: Prerequisites for gender mainstreaming and the promotion of youth and the inclusion of marginalized groups		
<p>The targeted communes are well informed about the Project on climate change, its objectives, its intervention modalities, the weight of women and young people of both sexes among the beneficiaries and the requirement to include landless families and Twa.</p>	<p>Inform widely about approaches and activities.</p> <p>Provide extensive information on beneficiaries and the share of women and young people.</p> <p>Inform on the eligibility criteria for support.</p>	<p>Ensure the mobilization of women and youth and Twa and landless groups. The public and private partners of the Project are involved</p>
<p>In the selected municipalities, the hills housing the catchment areas, marshes and access roads are well informed about the public and private investment actions in which they are involved.</p>		
<p>On the targeted hills, the CDCs, the different segments of the population, the hillside organizations understand the opportunities offered by the PNSADR-IM for family farms, for their members according to their gender and age, cooperatives, etc.</p>		
<p>In particular, women and young people understand that they are specifically targeted and eligible for all activities if they meet the criteria.</p>		
<p>Women and young people in particular understand that they can undertake alone or through groups.</p>		
<p>All, especially women and young people, understand that the initiators of green businesses that are financed are supported.</p>		
Implementation axis 2: Targeting of FAEs eligible for specific PASEC support, particularly women and youth		
<p>Training of elected officials</p>	<p>At least 30% of the members of CDCs, CCDCs and community councils trained are women.</p> <p>30% of young men under 35 years of age. Complete with the other men. Training young men.</p> <p>The project will work with the municipalities through the CDCs on the hills. This intervention logic is in line with IFAD's approach, which works primarily at the CDC level to directly reach the final target family farms of the projects and programmes it supports.</p>	<p>Women make up 30% of these different bodies without age requirements. Men are not classified by age.</p> <p>Data are not available but are expected to exceed 35%.</p>
<p>Training of extension workers</p>	<p>The monitors and zone technicians are the BPAEs. Women will not reach 5%.</p>	<p>These results will already update those already</p>

Elaboration of participatory plants for watershed management	Participation of at least 50% of which 30% are women and 30% young people out of 50% men	identified by the projects and which have established a consensus on the principle of participatory targeting of vulnerable FAE.
Targeting Twa households and vulnerable households.	Define vulnerability and marginalization according to communities. Classify FAEs by wealth level and the criteria used for this (land, livestock, non-agricultural activities, etc.).	
Implementation axis 3: Supporting the emergence of green companies		
Learning for smallholder farmers	At least 60% of young or women.	
Support for micro, small and medium-sized rural enterprises		
Highlighting green innovation		
Implementation axis 4: Knowledge management and management		
Gender-specific impact monitoring indicators are available	Mastering: Women's income level. The income level of young people. The evolution of the income difference between men and women. Diversification of FAE consumption. The typology of MPs funded for women, for youth versus funded MPs. Women's participation in farm income management	
The distortions noted in the antecedent situation in the sharing of the benefits of an activity common to men and women are corrected. Women participate in farm decisions. Women can control their incomes.	Organise a self-assessment on equal opportunities with an autonomous report. Document promising examples of teaching. Documenting innovations.	M/E. The gender manager of PSADRIM.

2. RESULTS FRAMEWORK

Activities	Indicators and targets	Chronology	Responsibilities
Objective of the component and the action plan: Increase the climate resilience of the most vulnerable family farms by protecting investments in food production downstream of the Imbo and Moso watersheds by relying on women, the fraction most involved in agricultural production, and young people of both sexes particularly open to innovations.			
The results of the action plan are: Result 1: the bases for the appropriation of the three gender requirements and the promotion of young people by the communities are set up and the relay and support structures are reinforced to support their implementation. Result 2: individual or group private green initiatives promoted, supported and highlighted, meet the three gender and young people promotion requirements.			
The direct beneficiaries of the project are estimated at 35% of the current population of the targeted areas of the two basins and 70% of the population of the two basins are indirect beneficiaries. Women will represent 50% of the direct beneficiaries because of their strong involvement in agricultural production and in resilience strategies against climate change, while young people of both sexes who are particularly open to innovations will be 60% of the direct beneficiaries.			

	Direct beneficiaries		Women		Men		Total	
	Age groups		18-35 years	+ 35 years	18-35 years	+ 35 years	18-35 years	+ 35 years
	%		30%	20%	30%	20%	60%	40%
<p><i>Reducing the flooded area of swamps by at least 30% during the rains.</i></p> <p>Reduction of at least 30% of sediment loads in micro-watersheds and agro-ecological units.</p> <p><i>At least 80% of men and women farmers from at least 80% of households in the upper and middle watersheds have practices for the sustainable management of agroecosystems.</i></p> <p><i>Farmers in the upper and middle watersheds increase their productivity by 30%.</i></p> <p>Plant cover (above and below ground biomass) in the target areas of the two basins has increased by at least by 20%.</p> <p>150 autonomous innovations/small green businesses (belonging to men, women and young people).</p> <p><i>150 micro and small businesses around SLM practices are created on behalf of young women (%), young men (%), adults over 35 (% of men and women). Share of entrepreneurial households from indigenous groups and landless farms.</i></p> <p>50% of participating farmers, identified by sex, age and farm, have the capacity to create added value on the farm for their products that support SLM by the fourth year.</p> <p>90% of participating farmers, identified by sex, age and farm, have access to markets for selected products and must sell 90% of their market-oriented products.</p> <p>70% of the participating farmers have a water collection capacity of at least 10,000 litres in the two basins.</p> <p>At least two recommendations are formulated in the PCDC formulation guide and relate to gender and the promotion of rural youth in SLM practices and their place in resilience against climate change.</p>								
Result 1: the bases for appropriating the commitment of the gender component and the promotion of young people by the communities are put in place and the relay and support structures are reinforced to support their implementation.								
Priority axis 1: Prerequisites for gender mainstreaming, the promotion of young people and the inclusion of marginalized groups.								
Explain and disseminate texts on soil and water conservation	<p><i>16 municipal administrators, all heads of municipalities, 3 representatives of the CDC, understand and explain the policies and regulations governing the conservation of water and soil on hills and neighbourhoods.</i></p> <p><i>According to the sex of the head of the commune, the two other representatives of the hills will be chosen so that there are two men and two women, two young adults and two adults over 35 years old</i></p>				The same as the component with the supervision of the gender unit of the country program		Supervision by the gender team	
	<p><i>All communities understand the policies and regulations governing soil and water conservation.</i></p>				The same as the component with the supervision of the gender unit of the country program			
Adopting sustainable soil and soil water management practices has increased	<p>The implementation capacities of at least 150 CDCs and hill communities are strengthened.</p> <p><i>In the current situation, 30% of CDCs are women, including young women.</i></p> <p><i>The Project will accompany assemblies to the hills to designate women and young people to respect the composition of the group.</i></p>				The same as the component with the supervision of the gender unit of the country program		Supervision by the gender team	
Implementation axis 2: Reinforcement of structures responsible for support and structures for representing communities.								
Adopting sustainable soil and soil water management practices has increased	<p>50 participatory land use plans and action plans are developed and implemented in the two land use basins, including 15 for steep slopes.</p> <p>The process of developing participatory management plans with updating the diagnosis of PCDCs from the perspective of SLM allows better control of the target group and its effective involvement in SLM: the description and evaluation of economic activities and the</p>				The same as the component with the supervision of the gender unit of the country program		Supervision by the gender team	

	involvement of men (including young people) and women (including young people), in agricultural and non-agricultural activities, the precision of decision-making centres within the holding in defining production strategies, monitoring food, income control, etc. targeting vulnerable households (Twa and landless).		
Improved access to agricultural information and extension services on soil and water conservation practices	The instructors from all the hills and neighbourhoods undergo refresher training on community engagement. Women are very weakly represented in this body. Depending on the proportion of young people, the project will place a strong emphasis on the gender and age composition of the relay workers and of the farmers in the lead. The target of 50% women divided between young adult women (30%) and adult women over 35 will be met. The same is true for men, who will represent 50% with the same age distribution.	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
	165 lead farmers (trained in SLM practices to improve peer-to-peer learning) (5 per commune) receive training on the evaluation and management of SLM and agro-ecosystems. They are also trained in water and soil conservation. The five farmers by hills will be composed of at least two men and at least two women and three of the five will be young.	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
	The skills of the BPEAE agents, agricultural instructors and relays are updated in soil and water conservation practices through refresher courses. Women being very little represented in the BPEAE and in the body of monitors, the representation of women will be reinforced among the technical relays and the leading farmers among the model farmers.	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
Improving peer-to-peer learning between smallholder farmers	330 additional farmers (10 from each district) are trained in FFS. In general, women constitute more than 50% of the auditors of the CEPs. The project will ensure the involvement of young men in order to respect the male / female ratios with their young fringes respectively.	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
Adopting sustainable soil and soil water management practices has increased	<i>The local farmers most involved in the practices will receive, after the preparation of the watershed management plans, training on (i) the different aspects of the plans, (ii) on how to develop, build and manage the structures for the conservation of water and soil on their farms.</i> At least 60% will be made up of young adults of both sexes and 40% of adults over 35 years divided between men and women	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
	<i>16 demonstration farms are set up on communal land where farmers from farms will learn by applying some of the best SLM practices adapted to their locality.</i> <i>On the farm, target the head of household and his wife.</i>	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
	At least 165 agro-forestry nurseries almost exclusively carried by young people and women are created at the rate of 5 per commune, to supply plant material intended to strengthen soil conservation structures. Seeds and plant material are collected locally and certified. The 165 nurserymen will be made up of young adults (women and men) and adult women over 35 years of age. Women can be selected from households they do not manage. Similarly in young households, the wife of	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team

	the head of household will also be targeted if she meets the defined criteria.		
	<i>70% of farms in the intervention areas of Imbo and Moso have water and soil conservation structures stabilized by plant material produced in nurseries and subsidized by THE PROJECT.</i>	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
	<i>For degraded communal land, community tree planting campaigns will be organized just before the start of the rainy seasons (seasons A, B and C).</i>	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
Increase rainwater harvesting on the farm at household level	<i>70% of the operations in the two basins are equipped with gutters and water tanks. Their contribution to this end will be the construction of the reservoir receiving bed and the support workforce required to install the gutters and reservoirs.</i>	The same as the component with the supervision of the gender unit of the country program	Supervision by the gender team
Result 2: supported private, individual or group green initiatives respect commitments on gender and the promotion of young people: (i) explicit targeting with ratios; (ii) correction of distortions on targets and (iii) documentation of results beyond the ratios.			
Priority axis 3: Support for the emergence of green businesses			