

**ONE UN JOINT PROGRAMME on Enhancing Climate Resilient and Integrated  
Agriculture in Disaster Prone Areas of Rwanda**

**2019-2023**



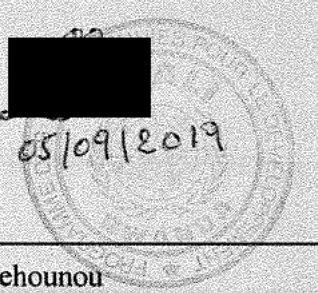

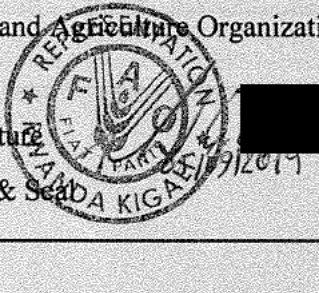
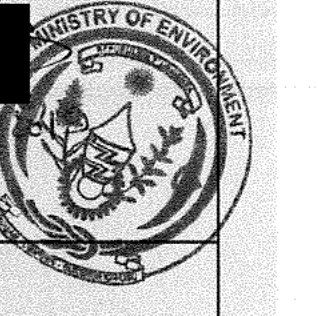

**JOINT PROGRAMME PROPOSAL**

## 1. Joint Programme Cover Page

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Country:	Rwanda	
Program Title:	Joint Programme on Enhancing Climate Resilient and Integrated Agriculture in Disaster Prone Areas of Rwanda	
Joint Programme outcomes:	UNDAP Outcome 2: By 2023 Rwandan institutions and communities are more equitably, productively and sustainably managing natural resources and addressing climate change.	
Programme Duration:	5 years	
Anticipated start/end date:	April 2020 – June 2023	
Implementing Partners:	Ministry of Agriculture and Animal Resources (MINAGRI), Ministry of Environment (MoE), Rwanda Meteorology Agency (Meteo Rwanda)	
Key Stakeholders:	Farmers in the target areas, Ministry of Emergency Management (MINEMA), Rwanda Environmental Management Authority (REMA), Rwanda Housing Authority (RHA), Ministry of Local Government (MINALOC), Ministry of Youth (MINIYOUTH), Ministry of Education (MINIDUC), Ministry of ICT & Innovation (MINICT), Districts (Kayonza, Bugesera, Nyagatare, Gakenke, Rulindo), CSOs	
Participating UN Agencies:	UNDP and FAO	
Total Budget:	2,930,025	
Fund Management Option (s):	Parallel Fund Management / Pass Through Modality	
Managing or Admin Agent:	UNDP	
Sources of funded budget:		
-	UNDP	USD 1,120,000
-	FAO	USD 984,00
-	ONE FUND	USD 826,025

**Names and signatures of national counterparts and participating UN organizations**

UN organizations	National Implementing Partners
<p>Mr. Fode NDIAYE One UN Resident Coordinator</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 05/09/2019</p> 	<p>Hon. Dr. Uzziel NDAGIJIMANA Minister of Finance and Economic Planning (MINECOFIN)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal [Redacted]</p> 
<p>Stephen Rodriques Resident Representative United Nations Development Programme (UNDP)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 05/09/2019</p> 	<p>Hon. Dr. Gerardine Mukeshimana Minister of Agriculture and Animal Resources (MINAGRI)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 10/09/2019</p> 
<p>Gualbert Gbehounou Resident Representative Food and Agriculture Organization (FAO)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 05/09/2019</p> 	<p>Hon. Dr. Vincent Biruta Minister of Environment (MoE)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 10/09/2019</p> 
	<p>Mr Gahigi Aimable Director General Rwanda Meteorology Agency (Meteo Rwanda)</p> <p>Signature [Redacted]</p> <p>Date &amp; Seal 10/09/2019</p> 

## Acronyms

BEFS	Bioenergy and Food Security
CIAT	International Center for Tropical Agriculture
CSA	Climate Smart Agriculture
DaO	Delivering as One
ENR	Environment and Natural Resources
FAO	Food and Agriculture Organization
FFS	Farmer field schools
GEWE	Gender Equality and Women Empowerment
GGCRS	Green Growth and Climate Resilience Strategy
IDP	Integrated Development Program
IPM	Integrated Pest Management
JWA	Japan Weather Association
LNOB	Leave No One Behind
Meteo Rwanda	Rwanda Meteorology Agency
MINAGRI	Ministry of Agriculture and Animal Resources
MINALOC	Ministry of Local Government
MINEDUC	Ministry of Education
MINEMA	Ministry of Emergency Management
MINICT	Ministry of ICT & Innovation
MINIYOUTH	Ministry of Youth
MoE	Ministry of Environment
NDCs	Nationally Determined Contributions
NST	National Strategy for Transformation
PSTA	Agriculture Policy and Strategic Plans for the Transformation of Agriculture
PUNO	Participating UN Agency
RAB	Rwanda Agriculture Board
REMA	Rwanda Environment Management Authority
RG	Results Group
RHA	Rwanda Housing Authority

SDF	Sustainable Development Goals Fund
SSIT	Small scale irrigation technology
UNDAP	United Nations Development Assistance Plan
UNDP	United Nations Development Programme

## 2. Executive Summary

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While 70% of the population of Rwanda is involved in agriculture, the high reliance on subsistence agriculture exposes the farmers to low productivity, high dependency on rain and weather conditions, and food price fluctuation. With increasing climate change, frequent and severe weather incidents cause hazards such as drought, floods and landslide, and the climate resilience of the farming population is a persistent and urgent issue of concern. Climate resilience is well articulated as a goal in the National Strategy for Transformation (NST1; 2017-2024), and the 50-year Green Growth and Climate Resilience Strategy (GGCRS), while the new Agriculture Policy and Strategic Plan for the Transformation of Agriculture (PSTA4) lay out the importance of increasing the longer-term sustainability of agricultural practices.

The joint programme '*Enhancing Climate Resilient and Integrated Agriculture in Disaster Prone Areas of Rwanda*' will address the issue shared by two key sectors, Environment and Natural Resources (ENR) and Agriculture, through the joint effort of two UN agencies, UNDP and FAO. The programme will be implemented as part of a concerted effort with other UN agencies and Development Partners.

The objective of the Joint Programme is to improve women and men farmers' livelihoods and climate resilience through the adoption of agro-ecological production technologies, improved climate information-based planning and early warning in the selected drought and landslide prone areas of the country.

The Joint Programme will contribute to the UNDP 2018-2023 Outcome 4 'By 2023 Rwandan institutions and communities are more equitably, productively and sustainably managing natural resources and addressing climate change', and contribute to the Sustainable Development Goals 2 "No hunger", 5 "Gender equality", 7 "Affordable and clean energy", 8 "Decent work and economic growth", 13 "Climate action", 15 "Life on land" and 17 "Partnerships for the goals".

The Joint Programme will be managed under a parallel funding modality and pass-through modality. Below are the outputs and indicative activities to achieve the intended objective. Outputs 1, 2, 3, 4, 5 will be directly implemented by FAO, with the Ministry of Agriculture and Animal Resources (MINAGRI) as Implementing Partner. Output 6, 7, 9 will be implemented by the Implementing Partners, Ministry of Environment (MoE) and Rwanda Meteorology Agency (Meteo Rwanda), with quality assurance by UNDP. Output 8 will be co-implemented by FAO and UNDP with their respective Implementing Partners. Each implementing institution will report to the Steering Committee, which is co-chaired by the MoE and MINAGRI and consists of representation from relevant stakeholders. The programme will avail \$2,104,000 of co-committed resource by UNDP and FAO, and \$3,153,432 from the Sustainable Development Goals Fund (SDF) through joint resource mobilization efforts. Further resources are to be mobilised to scale up and carry out the priority activities. In order to ensure efficiency and effective visibility of results, the agencies involved will explore joint opportunities on operations and communications in close relations with the Results Groups, the One UN Communication group and OMT.

### 3. Situation Analysis

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Over 70% of the population in Rwanda are involved in agriculture, with high reliance on small scale subsistence agriculture which is rain-fed and lacking in appropriate technologies. Agricultural productivity remains low, estimated at 40-50% of most crops production potential, mainly due to small farm sizes, hilly terrain and limited resilience to climate change and natural disasters. This has contributed to recurring food insecurity, malnutrition and overall reduction in the contribution of agriculture to the GDP.<sup>1</sup> Low productivity in forest and land use and unsustainable management of natural resources have led to soil degradation, encroachment into wetlands, increased water pollution and loss of biodiversity.<sup>2</sup>

Degradation of the natural environment, combined with climate change, are in turn triggering reduced agricultural productivity and vulnerability to natural disasters. Over 157,000 people are vulnerable to drought, 7,431 are vulnerable to landslides and over 5,000 houses are vulnerable to windstorm, while forest and landscape degradation and climate change increase the risk and severity of disaster affecting the most vulnerable population such as female-headed households and rain dependent farmers with low levels of education in rural areas.<sup>3</sup> Increase in average temperature, changes in precipitation and hydrologic patterns, and increased occurrence and severity of extreme weather events are likely to result in future reduced agricultural productivity as well as interrupted food delivery, leading to spikes in food produce prices.

In addition, lack of access to modern energy has resulted in limited exercise of modern agricultural practices such as irrigation. This results in suboptimal yields directly impacting the socio-economic welfare of farmers. Most rural households depend on wood fuel/charcoal for cooking which has severe health related impacts in addition to contributing to deforestation.

These challenges need to be addressed while responding to the need for job creation. The Government of Rwanda has set a target to create 1,500,000 decent and productive jobs by the end of 2024.<sup>4</sup> A large portion of these jobs is expected to be for youth. Agriculture remains one of the priority industries for growth in Rwanda. However, during the period of EDPRS II (2013-2018), agricultural growth averaged 4.1% compared to the 8.5% targeted. This was due to crop diseases, climate change effects, small land holdings, challenges in accessing credit, low value chain development, inadequate market connectivity and low farmer professionalization.

The Rwandan Government, through the Ministry of Environment (MoE) and its affiliated agencies such as the Rwanda Environmental Management Authority (REMA), Rwanda Meteorology Agency (Meteo Rwanda) and Rwanda Water and Forestry Authority (RWFA), and with the support of UNDP, has made considerable efforts to tackle environmental and climate change related challenges faced by the country in order to respond to the Vision 2050 and the National Strategy for Transformation I (NSTI; 2017-2024). Through the implementation of the national long-term Green Growth and Climate Resilience Strategy (GGCRS), the Environment and Natural Resources (ENR) sector has been successfully

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<sup>1</sup> UN 2017, Common Country Analysis

<sup>2</sup> Ministry of Environment, National Biodiversity Strategy and Action Plan, 2016.

<sup>3</sup> MIDIMAR 2012, National Disaster Risk Atlas of Rwanda

<sup>4</sup> National Strategy for Transformation

mainstreaming climate change and the green economy concept into key development sectors, agriculture being one of the priority areas.

Likewise, the Ministry of Agriculture and Animal Resources (MINAGRI) and Rwanda Agriculture Board (RAB), with the support of FAO, has made considerable progress to direct the sector toward sustainable agriculture, including the approval of the new Agriculture Policy. The recently upgraded Strategic Plans for the Transformation of Agriculture (PSTA4) envisages a transformation of agriculture from a subsistence sector to a knowledge-based value creating sector that contributes to the national economy and ensures food and nutrition security. PSTA 4 adopts a food systems approach for enhanced nutrition and household food security. It proposes interventions that would ensure the nutrient quality of commodities is preserved or enhanced throughout the entire value chain. Resilience and risk mitigation strategies will continue to be developed particularly at the household level.

The national policies and strategies have been supported and implemented through multiple interventions by stakeholder institutions and development partners. However, below are persistent challenges identified as obstacles to resilience and better livelihoods of small scale farmers.

#### Agriculture productivity need to be boosted in a sustainable and resilient manner

Land resource has been considered the most important factor of production, the backbone of the economy and the basis of survival for the entire population by generating 90% of food required in the country-- while it is also the main limiting factor of the country's production. Therefore, agricultural growth requires an increase in profits per hectare, increasing yields and switching to higher value agricultural commodities. In light of global climate change, the agriculture sector must build resilience through on-farm measures and increased productivity and prepare for climate irregularities. The PSTA4 Priority Area 2 on productivity and resilience focuses on promoting sustainable and resilient production systems for crops and animal resources. Irrigation, radical terracing to mitigate land erosion, biological soil control fertilizers, access to improved seed utilization, aquaculture, feed and fingerlings production, nutrition sensitive agriculture are some identified solutions.

#### Climate Information to be strengthened

Climate information is critical for proper agricultural planning, disaster risk management, early warning and for fast response to disasters. Climate and weather-related data are collected and analyzed by Meteo Rwanda, however challenges remain in data collection as the weather station network still has gap areas, and a large part of data is collected manually involving volunteer observers, with data being sent monthly by phone and paper forms. This can delay the early warning mechanism. Moreover, this method is inefficient to provide first-hand and timely scoping information and there are risks of data loss. Climate change and changing weather patterns pose a challenge to both long term and short-term weather forecasting, which are both critical information for agronomists and farmers to plan and prepare throughout the agricultural cycle. Climate information products need to be developed, and information literacy needs to be strengthened for better uptake of the forecasts into planning and daily activities.

#### Integrated Development Programme / Green Villages to be 'greened'

Green Village was a concept developed by Rwanda Environment Management Authority (REMA) with support from UNDP. The concept integrates climate resilient and environmentally sound technologies and practices into village planning. The concept was



proven and taken to scale by the Ministry of Local Government (MINALOC) and Rwanda Housing Authority (RHA) through the Integrated Development Program (IDP) Model Villages. However, the priority has been on the relocation of the vulnerable population from disaster prone areas and the construction of new villages. With the limited technical and financial capacity at districts and RHA to apply the Green Village toolkit, newly built villages do not always have sufficient green components and livelihood opportunities, hindering the programme's full potential to increase resilience and environmental sustainability. The residents also need support to improve their land use, including adopting sustainable agricultural practices.

#### Access to sustainable energy to be enhanced comprehensively

Over 90% of the population rely on wood and charcoal as their primary household energy source, leading to further deforestation. Lack of appropriate energy sources also prevents the introduction of modernized farming methods. Alternative sustainable energy sources need to be identified and introduced in rural communities, both for household use (eg. cooking) and for agricultural production. There are a variety of appropriate renewable technologies that can be considered, including solar, wind and mini-hydro, as well as those that utilize agricultural residues such as biogas and briquettes. The new national Biomass Energy Strategy called for a robust analysis of bio-energy pathways that can reduce the population's reliance on unsustainably harvested wood. There is also a clear recognition that the most appropriate technology will need to be environmentally sustainable, economically viable and socially acceptable within the Rwandan context.

#### Engaging Educated Youth in agricultural transformation

Young people make up the largest part of the working age population in Rwanda. They are important actors of change, and therefore should play a key role in supporting the country's development. The unemployment rate in Rwanda is higher among young people (21 per cent) than among adults (13.3 per cent) and about 70 % of youth belong to the underemployed category. Thus, job creation is a critical policy issue. About 80% of young people in Rwanda, including university-educated young men and women, live in rural areas. One potential way of overcoming the constraints of accessing credit, low value chain development, inadequate market connectivity and low farmer professionalization in agriculture while ensuring sustainable land management is engaging university-educated youth in transforming agriculture.

## **4. Strategies**

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The joint programme will build on the achievements and lessons learnt from several projects that were implemented during the UNDAP I by FAO and UNDP. It was designed in close consultation with existing and new stakeholders and integrates climate smart agriculture with strengthened climate information production and uptake capacities. The programme will also include provision of tools and equipment to the affected populations at the downstream level.

### **Lessons learned:**

#### Climate Smart Agriculture (CSA) to address the triple challenges

- FAO's concept of CSA embraces a range of potential adaptation measures which can provide a good starting point for developing effective adaptation strategies for any site. These include enhancing the resilience of agro-ecosystems by increasing ecosystem services through the use of agro-ecology principles and landscape approaches.

- Risk exposure can be reduced through diversification of production or incomes, building input supply systems and extension services that support efficient and timely use of inputs. Stress-tolerant crop varieties, livestock breeds and fish and forestry species are also examples of adaptation measures that can increase resilience.
- Positive economic returns have been demonstrated for multiple practices that build adaptive capacity and reduce emission intensity in soil and land, water crops, livestock, fisheries and trees, which are the priority subsectors highlighted in the Nationally Determined Contributions (NDCs).
- These practices leverage natural capitals for addressing the triple challenge of poverty/food security, unemployment and environmental degradation, using regenerative agriculture and agro-ecological practices.
- Agroforestry, zero grazing, green manure, vermi-composting are some examples of good practices with climate benefits.

#### Bioenergy and Food Security Assessment as a tool for energy source identification

- Over the past several years FAO has developed and tested a set of tools within the Bioenergy and Food Security (BEFS) approach to support countries in the designing and implementation of sustainable bioenergy strategies that account for agriculture and food security needs and contributes to economic development.
- The approach covers the whole bioenergy pathway starting from feedstock availability to energy end-use options, including the viability assessment of sustainable bioenergy production. A rapid appraisal toolkit will provide a set of easily applicable tools which allow countries to get an initial indication of their sustainable bioenergy potential and of the associated risks and benefits, economic viability and key social indicators.
- The primary lesson learnt from other countries in Africa is that the success of bioenergy sector is highly dependent on the local context. The BEFS analysis therefore always stems from developing an understanding of the local context, specifically the competing uses of residues. Engaging with the national stakeholders is a key element of the BEFS approach.

#### Increasing rural incomes through irrigation in Eastern Rwanda

- A component on small-scale irrigation within the 'Sustainable Agricultural Intensification for Improved Livelihoods, Food Security and Nutrition Project' (SAIP) provided technical assistance to strengthen the resilience of small farmers. This was achieved through the development of farmer-led, affordable, productive, and sustainable Small-scale Irrigation Technology (SSIT) models. Capacity building activities of the farmers' organizations (WUAs, SHGs, and cooperatives) are still to be conducted.
- The Technical Assistance implemented by FAO (TA-SAIP) will improve project performance and impacts, incorporating best practices and documenting lessons learnt to strengthen the capacities of the targeted project beneficiaries and to enhance project effectiveness.

#### Improvement of climate information rely both on product and uptake

- UNDP during the previous UNDAP cycle (2014-2018) supported Meteo Rwanda on a pilot innovation project 'Internet of Things (IoT) for Climate Early Warning', which produced an Android-SMS mobile application that allows RAB and sector agronomists to add agricultural advice on Meteo Rwanda weather forecasts, and to disseminate to

farmers by SMS. The project also tested an IoT sensor network in Kayonza District to collect soil moisture and temperature data.

- Lessons learnt from this project show that missing meteorological instruments, especially in the drought prone areas, are often the rain gauges and other standard weather station data which can improve forecast. While from agricultural perspective, real time soil moisture data is crucial, as drought is triggered by lack of soil moisture and not necessarily rain. Another identified weather hazard by the farmers was windstorm.
- The project mapped the information dissemination route of stakeholders and concluded that it was important to use existing channels (RAB- district agronomists – sector agronomists – farmer leaders) in order to rebuild the trust in weather information.
- The most critical climate information for agriculture was identified as the seasonal weather forecast. Technical capacity need to be strengthened both on the analysis of the forecast and ability to apply the information for planning.

#### Capacity building is needed for faster uptake of Green Village concept in IDP model villages

- UNDP with REMA conducted a cost-benefit analysis of Green Villages and the concept was proven to have an overall positive financial benefit to development in the long run.
- One reason for low uptake of the concept in the newly built IDP model villages is the insufficient capacity at district level to use the Green Village toolkit. While the toolkit is comprehensive, it has its challenges for being adaptive and the initiation phase can be complicated. The toolkit can be upgraded to encourage a more needs-driven or human-centered approach.
- Identified needs for Green Villages located in drought prone areas are hardware such as domestic use water tanks, biogas cooking stoves, latrine and roof protection against wind storm and forests that serve as wind breakers around the villages.
- To improve livelihoods of people living in green villages, there is also a need for promoting off-farm jobs through supporting locals to access to microcredits, trainings in business development, saving, etc.
- Increased agricultural production through improved sustainable land use and management including agroforestry, through trainings in appropriate land use and management is also a priority.
- A needs assessment will be conducted to identify the priority actions.

#### **Proposed Joint Programme**

The joint programme will aim to enhance the climate resilience of farmers in drought and landslide prone areas of Rwanda through the promotion of an integrated crop, aquaculture and livestock intensification system based on sound climate information, combined with land mitigation measures such as agroforestry and the provision of green technologies and livelihood opportunities. The programme will comprehensively strengthen adaptation to climate change issues, increase productivity for both agriculture and livestock while enhancing resilience and nutrition.

The objective of the Joint Programme is *to improve women and men farmers' livelihoods and climate resilience through the adoption of agro-ecological production technologies, improved climate information-based planning and early warning in the selected drought and landslide prone areas of the country.*

While similar issues are seen widely across the country, the proposed geographic areas of intervention are the Districts of Kayonza, Bugesera, Nyagatare, Gakenke and Rulindo, where drought or landslide risks are high and the agencies have previous experience to build upon. However, the provision of green component may vary based on the baseline study of IDP model villages to take place in year 1.

Below are the outputs and indicative activities to achieve the intended objective. Outputs 1, 2, 3, 4, 5, will be directly implemented by FAO, with the Ministry of Agriculture and Animal Resources (MINAGRI) as Implementing Partner. Output 6, 7, 8 will be implemented by the Implementing Partners, Ministry of Environment (MoE) and Rwanda Meteorology Agency (Meteo Rwanda), with quality assurance by UNDP. Output 9 will be co-implemented by FAO and UNDP with their respective Implementing Partners.

**Output 1: Community driven riparian environmental conservation and crop intensification strengthened through introduction of proven climate smart agricultural techniques**

- Support sustainable crop-livestock integration
- In collaboration with MoE/RWFA assess soil erosion situation in different agroecological conditions/landscapes and demonstrate appropriate soil erosion control measures in the selected sites
- Demonstrate Soil moisture conservation technologies
- Scale up proven Sustainable Land Management techniques in Gakenke (e.g. Terraces)
- Demonstrate Integrated Pest Management (IPM) for judicious use of pesticides / push-pull techniques
- Demonstrate Solar powered small scale irrigation systems based on solar radiation study on high value crops in the drought prone areas
- Introduce tested drought tolerant varieties in drought prone areas (Bugesera Kayonza and Nyagatare districts)

**Output 2: Integrated crop, livestock and aquaculture demonstrated adopting the Songhai Model**

- Use efficiently the available water ponds by introducing fish farming (e.g. catfish) and integrating activities in a proper manner through the value chain
- Adapt artificial insemination to produce fish all year round
- Introduce and develop maggots farming so that worms could go for fish feeds
- Develop quality and cheap floating feed production for fish
- Use the concrete ponds inside the hatchery to monitor larvae before introducing them to ponds so as to cut losses
- Ensure maintenance of ponds to prevent them from collapsing
- Pilot fish farming in selected rice fields
- Ensure availability of adequate Tilapia, Catfish fingerlings for supply to fish farmers in piloted areas

**Output 3: Farmer capacity developed for increased production skills focusing on CSA through participatory learning with gender and youth fully integrated**

- Farmer capacities enhanced through farmer field schools (FFS) (women and youth taking the lead)
- Develop curriculums that are focused on climate smart and nutrition sensitive agriculture; agroecological production technologies, fish farming and crop-livestock integration; agri-business and entrepreneurship
- Sharing of experiences and good practices through farmer exchange visits

**Output 4: Sustainable Agricultural intensification and food security enhanced**

- Support selected farmer organizations for improved agricultural productivity and healthier household nutrition
- Key to achieving agriculture transformation is raising farm productivity levels, with due consideration to CSA. This will support interventions aimed at sustaining and further increasing productivity and profitability of selected crops
- Promote technology and best practice for increased availability and efficient use of water for irrigation to increase crop productivity and increase farmers' resilience to climate volatility
- Building on the existing infrastructure matching grants will be provided for small-scale irrigation equipment to the farmers such as sprinklers, drip, gated-pipes, or hose-furrow technologies and creating awareness on how to use that equipment effectively and efficiently
- Enhance market linkages and value addition by strengthening the capacity of farmers' organizations and other value chain actors and by improving their access to finance

**Output 5: Bioenergy and Food Security assessment conducted and capacity for integrating bioenergy in agricultural resilience strategies supported**

- BEFS Assessment conducted at National Level
- Conduct BEFS Capacity Building and Multi-stakeholder Institutional Dialogue (Biomass Technical Working Group)
- Comparison of bioenergy and solar energy solutions for decentralized energy production

**Output 6: Selected IDP Villages equipped with green components**

- Conduct baseline studies
- Provide needed hardware such as domestic use water tanks, biogas cooking stoves, latrine and roof protection against wind storms based on climate information and needs
- Support in new livelihood opportunities (e.g. provision of microfinance, training, marketing)
- Promote agroforestry and/or sustainable land use management around the villages, especially in the Eastern Province
- Promote Sustainable Land management in the agricultural land owned by green village dwellers
- Pilot business start-up support to youth in sustainable agri-businesses linking with the Songhai model

- Study and pilot on soil erosion prevention methods
- Enhance farmer capacity for application of meteorological information in the green villages

**Output 7: Technical capacity of Meteo Rwanda strengthened to produce improved agriculture related weather data and forecast products**

- Set up or replace automated rain gauges and automated weather stations in gap areas in the selected districts
- Pilot PPP to maintain meteorological stations
- Test and validate different merging technics in the generation of the Maproom portal data library to improve usability for agriculture
- Upgrade WRF and review regional climate models
- Validation of the Radar data with ground weather observations in selected districts and related areas
- Co-produce the weather information package between Meteo Rwanda, MINAGRI and other key stakeholders to meet the needs of farmers

**Output 8: Improved use of weather and climate information including agricultural advice by farmers**

- Improve the visualisation of weather and climate information (Integrate the app and system with the FAO Android app and voice system, etc)
- Climate data base harmonisation and improve the automatic advisory database
- Training of trainers in weather and climate data, information and advisories and their usage (interpretation and decision making) for supporting RAB, district officials and farmers
- Conduct baseline surveys on the contribution of weather and climate information in agricultural production increase and avoided loses
- Organise backstopping exercises and improve users feedback mechanisms
- Early weather warning on drought, flood, landslide, pest and disease outbreak through farmers' adoption of IT technologies

**Output 9: Concepts proven and upscaled through new proposal development**

- Develop a GCF proposal based on the findings from joint programme
- Adopt other systematic resource mobilization efforts

**Partnership, LNOB and Sustainability of Results:**

The joint programme is building on other initiatives and projects funded or implemented by UNDP and FAO, which strive to build the resilience of farmers in rural areas. In particular, the UNDP programme 'Strengthening the Capacity of the ENR Sector for Green Economy Transition', a 5 years (2018-2023) programme with the Ministry of Environment will share key activities on the greening of Green Villages (Output 4) and resource mobilization (Output 7), as well as share the same project management team. This budget, although will not appear in the budget framework per output, will serve as co-funding from UNDP.

Each party will continuously seek additional resources and partnerships in order to scale up the proven concepts and activities. It will collaborate closely with existing programmes and projects in climate change, disaster risk management and climate smart agriculture supported by other development partners such as the International Center for Tropical Agriculture (CIAT), UK Met Office).

The joint programme, through its designing phase, facilitated a new partnership between Meteo Rwanda and Japan Weather Association (JWA), to build technical capacity of Meteo Rwanda on improved forecasting using weather radars and automated weather stations in collaboration with the national meteorological institution of Japan, Japan Meteorological Agency. The partnership will be concretized through the establishment of a MOU between Meteo Rwanda and JWA.

Agriculture is a strong entry point for mainstreaming gender equality and women's empowerment (GEWE) and the leave no one behind (LNOB) principle. Special focus shall be given to the role of women and youth as potential change makers in on-the-ground activities (e.g. Green Villages, irrigation, bio-energy instalment). Women as well as other potentially vulnerable population groups, including but not limited to people with disabilities, refugees, poor rural farmers and unemployed youth, will always be considered and included in all policy reviews, strategy formulation and downstream implementation, following the principle of LNOB. All knowledge products and reports will be required to have dedicated sections on gender, youth and marginalized populations.

The pathways (outputs, interventions and actions) in the programming framework have been selected by working closely with the implementing partners: MINAGRI, MoE and Meteo Rwanda. The implementing partners are relevant national institutions that will carry on with the results. Capacity building is threaded through all outputs and across multiple dimensions (strategic planning, organisational development, skills transfer, access to resources, etc.), at central, sector and district levels. The programme will promote sustainable agro-ecological production technologies that are climate smart and contribute to resilience, reduced malnutrition and improved household livelihood. This will be further sustained through enhancing the knowledge of farmers and participatory capacity building of extension services.

The joint programme activities will be designed in detail with close consultation with the beneficiaries and stakeholders:

- Beneficiaries- women and men farmers in identified disaster prone areas of Kayonza, Bugesera, Nyagatare, Gakenke and Rulindo Districts (to be discussed further)
- Stakeholders- MINALOC, MINEMA, RAB, RHA, REMA, RWFA, MINICYOUTH, MINICT, MINEDUC, Districts, CSOs

The joint programme will reach out to other UN agencies, development partners and bilateral donors active in the ENR and Agriculture sector to continuously strengthen partnerships. Resource mobilisation will be a constant effort and planned from the outset for specific activities that have potential for scale up.

Finally, this programme has been developed in alignment to the national development strategies including the NSTI, the ENR SSP, the Agriculture SSP, PSTA4, the new

Agroforestry Strategy, Environment & Climate Change Policy and the Environment and Climate Change Mainstreaming Strategy. It also intends to respond to Priority Areas 6 (Agriculture) and 7 (Natural Resources). This programme is integrated in and will contribute to the United Nations Development Assistance Plan II (UNDAP II 2018-2023), which was developed in sync with the NSTI together with all UN agencies operating in the country, as well as the UNDP Country Programme Document (CPD). The programme will contribute to the UNDAP II Outcome 4, “By 2023 Rwandan institutions and communities are more equitably, productively and sustainably managing natural resources and addressing climate change”, and more specifically to Output 4.2 “Institutions and communities in target areas have increased technical capacity, skills and knowledge for the sustainable use of natural resources and climate change adaptation methods including the use of renewable energy”, which both FAO and UNDP contribute to.

Sustainable Development Goals 2 “No hunger”, 5 “Gender equality”, 7 “Affordable and clean energy”, 8 “Decent work and economic growth”, 13 “Climate action”, 15 “Life on land” and 17 “Partnerships for the goals”.





			FAO	r	MINA GRI	MINAG RI, RAB, Districts, Meteo Rwanda	120,000	185,000	120,000	80,000	8,0000	585,000 (SDF)
<p><b>Output 1:</b> Community driven riparian environmental conservation and crop intensification strengthened through introduction of proven climate smart agricultural techniques</p>	<p>Scale up proven Sustainable Land Management techniques in Gakenke (e.g. Terraces)</p> <p>Assess soil erosion situation in different agroecological zones and demonstrate soil erosion control measures in the selected sites</p> <p>Demonstrate Soil moisture conservation technologies</p> <p>Demonstrate Integrated Pest Management (IPM) for judicious use of pesticides / push-pull</p>	<p>Indicator 1.1: % of farmers in the selected sites that demonstrate at least one climate smart farming technique</p> <p>Baseline 5% Target: 80</p> <p>Indicator 1.2: % of farmers in the selected sites that are using drought tolerant crop varieties</p> <p>Baseline 5 % Target: 80</p>										

	<p>techniques</p> <p>Demonstrate Solar powered small scale irrigation systems based on solar radiation study on high value crops in the drought prone areas</p> <p>Drought tolerant varieties tested and introduced in drought prone areas (Bugesera and Nyagatare districts)</p>	<p>Indicator 2.1: % of the farmers in the selected sites practice fish farming by 2023</p> <p>Baseline 0</p> <p>Target 30</p>	<p>FAO</p>	<p>RAB (MINA GRI)</p>	<p>Districts, MINALOC</p>	<p>135,000</p>	<p>185,000</p>	<p>80,000</p>	<p>50,000</p>	<p>50,000</p>	<p>500,000 (SDF)</p>
<p><b>Output 2:</b> Integrated crop, livestock and aquaculture demonstrated adopting the Songhai Model</p>	<p>Use efficiently the available water ponds by demonstrating cat fish farming and integrating activities in a proper manner</p> <p>Maintain water ponds to prevent them from</p>										

<p><b>Output 3:</b> Farmer capacity developed for increased CSA and improved value chain through participatory</p>	<p>collapsing using Songai Model</p> <p>Pilot fish farming in selected rice fields</p> <p>Ensure availability of adequate Tilapia, Cutfish fingerlings for supply to fish farmers in piloted areas</p> <p>Organize a study tour to Songhai</p>	<p>Indicator 3.1: % of FFS groups integrating youth and gender in the selected sites have been trained in Climate smart agriculture and demonstrate increased</p>	<p>FAO UNDP</p>	<p>RAB (MINA GRI)</p>	<p>MINAG RI, Districts, MINALO C, MINIYO UTH, MINEDU C, Meteo Rwanda</p>	<p>40,000</p>	<p>110,000</p>	<p>10,000</p>	<p>10,000</p>	<p>10,000</p>	<p>180,000 (SDF)</p>
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<p>learning with gender and youth fully integrated</p>	<p>nutrition sensitive agriculture; agroecological production technologies, fish farming and crop-livestock integration; agribusiness and entrepreneurship</p> <p>Share experiences and good practices through farmer exchange visits</p>	<p>production</p> <p>Baseline 0</p> <p>Target 100</p> <p>Indicator 3.2 % of the trained FFS farmers practice skills that are demonstrative of Climate Smart and nutrition sensitive agriculture, disaggregated by sex</p> <p>Baseline 0</p> <p>Target 60 (M: 60%, F: 60%)</p>	<p>FAO</p>	<p>RAB (MINA GRJ)</p>	<p>MINAG RI, Districts, MINALOC</p>	<p>80,000</p>	<p>270,000</p>	<p>150,000</p>	<p>100,000</p>	<p>100,000</p>	<p>700,000 (FAO)</p>
<p><b>Output 4:</b> Sustainable Agricultural intensification and food security enhanced</p>	<p>Strengthen selected farmer organizations for improved agricultural productivity and healthier</p>	<p>Indicator 4.1 % of farmers strengthened in improved productivity and healthier nutrition levels</p> <p>Baseline: 0</p>	<p>FAO</p>	<p>RAB (MINA GRJ)</p>	<p>MINAG RI, Districts, MINALOC</p>	<p>80,000</p>	<p>270,000</p>	<p>150,000</p>	<p>100,000</p>	<p>100,000</p>	<p>700,000 (FAO)</p>

	<p>household nutrition</p> <p>Raise farm productivity levels, with due consideration to CSA supporting interventions aimed at sustaining and further increasing productivity and profitability of selected crops</p> <p>Promote technology and best practice for increased availability and efficient use of water for irrigation to increase crop productivity and increase farmers' resilience to climate volatility</p>	<p>Target: 50%</p> <p>Indicator 4.2 % Farmers with raised productivity and increased profitability within context of CSA</p> <p>Baseline: 0</p> <p>Target: 80%</p> <p>Indicator 4.3: % farmers with increased productivity and resilience to climate volatility through application of technologies and best practices in efficient water use</p> <p>Baseline: 0</p> <p>Target: 80%</p> <p>Indicator 4.4: % farmers provided with matching</p>									
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<b>Output 5:</b> Bioenergy and Food Security assessment conducted and capacity for integrating bioenergy in agricultural resilience strategies supported	improving their access to finance	Indicator 5.1: Bioenergy Assessment for the selected district completed and report available Baseline: NO Target: YES Indicator 5.2 Comparison of solar and bioenergy options completed and report available. Baseline: NO Target: YES	FAO	MINA GRI	MININF RA, MINALO C, MoE, Meteo Rwanda	80,000	200,000	4,000	0	0	0	0	0	284,000 (FAO)						
<b>Output 6:</b> IDP / Green Villages in critical areas	Provision of hardware (e.g. domestic use water tanks, biogas	Indicator 6.1: # of households in IDP model villages newly benefiting	UNDP	MoE, MINA GRI	RHA, MINALO C, District,	120,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	560,000 (UNDP)	110,000	110,000	200,000	200,000	60,000	810,000





<p><b>Output 7:</b> Technical capacity of Meteo Rwanda strengthened to produce agriculture related weather data and forecast products</p>	<p>Set up or replace automated rain gauges and automated weather stations in gap areas Pilot PPP to maintain meteorological stations Test and validate different merging techniques in the generation of the Maproom portal data library to improve usage for agriculture Upgrade WRF and validate regional climate models Validation of the Radar data with ground weather</p>	<p>7.1: Level of validation (data source-quality correlation) of weather and climate data in the data bank 1) Maproom onset definition is general (country wide) 2) Maproom onset definition specific for each climatic zones 7.2: # of tailored packages validated by key stakeholders Baseline:0 Target: 3</p>	<p>UNDP</p>	<p>Meteo Rwanda</p>	<p>MINAG RI, RAB, District, CIAT, UK Met Office Japan Weather Association</p>	<p>79,000</p>	<p>150,000</p>	<p>120,000</p>	<p>120,000</p>	<p>100,000</p>	<p>569,000 (SDF)</p>
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	<p>Training of trainers in weather and climate data, information and advisories and their usage (interpretation and decision making) for supporting RAB, district officials and farmers</p> <p>Conduct baseline surveys on the contribution of weather and climate information in agricultural production increase and avoided losses</p> <p>Organise backstopping exercises and improve users</p>												

	<p>feedback mechanisms</p> <p>Early weather warning on drought, flood, landslide, pest and disease outbreak through farmers' adoption of IT technologies</p>	<p>usage of climate information</p> <p>Baseline: 0</p> <p>Target: 50 (M 25; F 25)</p>	UNDP	MoE	<p>MINAG</p> <p>RI, RAB, Meteo</p> <p>Rwanda, RHA, MINALO</p> <p>C, District, REMA, MINEM</p> <p>A</p>	44,000	164,000	44,000	44,000	44,000	340,000 (UNDP)
<p><b>Output 9:</b></p> <p>Concepts proven and upscaled through new proposal development</p>	<p>Develop GCF and other proposal on climate change adaptation</p> <p>Other resource mobilization</p> <p>Support to SPIU</p>	<p>Indicator 9.1: # of GCF project proposal 1) developed by ENR sector 2) approved by the NDA. 3) Amount of resources newly mobilised from the GCF [US\$ millions]</p> <p>Baseline: 1) 0, 2) 0, 3) 0</p> <p>Target: 1) 2, 2) 2, 3) 30</p>	UNDP	MoE	<p>MINAG</p> <p>RI, RAB, Meteo</p> <p>Rwanda, RHA, MINALO</p> <p>C, District, REMA, MINEM</p> <p>A</p>	44,000	164,000	44,000	44,000	44,000	340,000 (UNDP)

UNDP Direct Project Cost	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000	220,000 (UNDP)
UNDP Programme Cost	467,000	698,000	548,000	548,000	548,000	548,000	388,000	388,000	2,649,000
SDF	259,000	380,000	350,000	350,000	350,000	350,000	190,000	190,000	1,529,000
Co-funding	208,000	318,000	198,000	198,000	198,000	198,000	198,000	198,000	1,120,000
UNDP Indirect Support Cost (Quality assurance, M&E, communication) – GMS 7% as per guideline	18,130	26,600	24,500	24,500	24,500	24,500	13,300	13,300	107,030
FAO Programme Cost	455,000	950,000	404,000	404,000	404,000	270,000	246,000	246,000	2,325,000
SDF	295,000	480,000	210,000	210,000	210,000	140,000	140,000	140,000	1,265,000
Co-funding	160,000	470,000	194,000	194,000	194,000	130,000	106,000	106,000	1,060,000
FAO Indirect Support Cost (Quality assurance, M&E, communication) – GMS 7% as per guideline	21,854	34,804	15,904	15,904	15,904	11,004	11,004	11,004	94,570
RCO Cost	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	20,000
Lead Agency 2% (1% Administrative Agent fee and 1% Convening Agency fee)	12,263	18,812	12,392	12,392	12,392	10,894	7,470	7,470	61,832
Total Joint Programme	978,247	1,732,216	1,008,796	1,008,796	868,398	669,774	—	—	5,257,432

## **6. Management and Coordination Arrangements**

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### **Cost Efficiency and Effectiveness**

The joint programme was designed by UNDP and FAO, which are leading agencies in the ENR and Agriculture sectors, respectively, while active in the cross-cutting issues between both sectors. Under the One UN Result Group (RG) 1, outcomes and outputs will be achieved by the collaborative efforts of two UN agencies. Key actions will be identified and implemented by respective concerned agencies. At all levels of results of this programme, the concerned UN agencies will collaborate under multisectoral, multi-skilled teams and will be jointly accountable for the achievement of results. At the programme level, both heads of agencies are designated to co-lead the implementation, ensure coordination and strengthening of partnerships both within the UN and with the government and other development partners in the country. Synergies will be sought with UN agencies undertaking efforts in agriculture and climate change mainstreaming, namely UN WOMEN, WFP and UN Environment, and will be open to other agencies to join with concrete activities within the scope.

The coordination with other UN agencies through the DaO framework will ensure clear division of labour based on the comparative advantage and mandate of each agency; increased mutual accountability, performance-based funding through the Sustainable Development Goal Fund (SDF) Rwanda and sustainability of the achieved results. The partnership within the two UN agencies will focus on results by bringing together agency specific planning requirements consistently and seamlessly, ensuring necessary and sufficient programme logic and the theory of change in the results chains and links results to resource requirements. Through annual reviews conducted with the government, development partners and stakeholders and necessary adjustments made, the joint programme will ensure coherence and consistency between actions, results, resources, reporting and accountability which will result in cost efficiency and effectiveness. The implementation modalities within Delivering as One (DaO), which has demonstrated real efficiency gains and cost reduction, will continue to minimize duplication between the UN and national systems. Quality plans and improved and simplified M&E framework in the system will support annual strategic reviews, reporting against clear targets and enhance performance-based resource allocation. This will result in synergies across UN agencies.

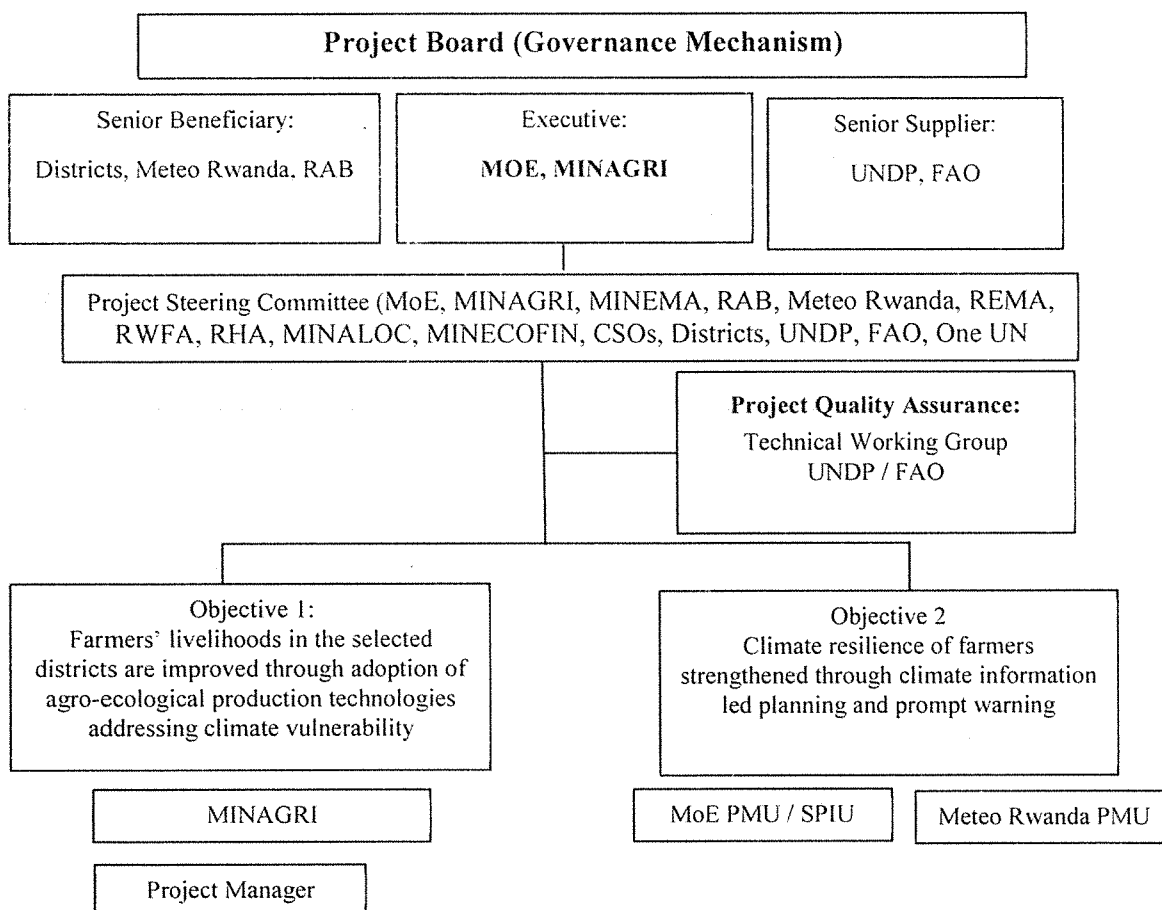
Different technical and knowledge creation consultancies will be supported under this programme with the aim of generating evidence and producing appropriate policy actions to inform and help implement national and sector policies and programmes. Both UNDP, FAO and Government procurement procedures will be used as required to ensure value for money, quality and timeliness. Decisions will be made based on evidence. Appropriate indicators and means of verification will be periodically monitored to understand the progress of project implementation and adjust course of action accordingly. Monitoring and evaluation will be done jointly between UNDP, FAO and implementing partners, including joint field visits.

### **Project Management**

The joint programme will require, for its functioning and achievement of intended results, effective and efficient technical and management support at both central and decentralized levels of national institutions, as well as with private sector and civil society. The programme will be jointly implemented within a single programmatic framework and designed document

but with different implementing agencies. At the national level, implementing agencies will be the MoE, MINAGRI and Meteo Rwanda. Each implementing agency will have a dedicated structured management system and responsible personnel for project follow-up. This will be the SPIU for the MoE and MINAGRI, and a management structure agreed with UNDP for Meteo Rwanda. Outputs 1, 2, 3, 5 will be directly implemented by FAO, with the Ministry of Agriculture and Animal Resources (MINAGRI) as Implementing Partner. Output 6, 7, 9 will be implemented by the Implementing Partners, Ministry of Environment (MoE) and Rwanda Meteorology Agency (Meteo Rwanda), with quality assurance by UNDP. Output 4 and 8 are cross-cutting components, co-implemented by FAO and UNDP with their respective Implementing Partners.

Programme reporting will be quality assured and approved by the joint steering committee meetings (SCM; twice a year) composed of members from different institutions (MoE, MINAGRI, MINEMA, RAB, Meteo Rwanda, REMA, RWFA, MINALOC, RHA, MINECOFIN, CSOs, Districts, UNDP, FAO and the SDFund donor). The SCM will be co-chaired by the Permanent Secretary of the Ministry of Environment and Ministry of Agriculture. MoE/MINAGRI will serve as the secretariat of the steering committee. The technical working group will be consisted of the project/programme managers of FAO, MoE and Meteo Rwanda, MINAGRI and



RAB as partner and with quality assurance by UNDP and FAO programme managers. The technical working group will meet at least quarterly to ensure cooperation between the three project/programme managers, timely reporting and to resolve technical obstacles if any.



Project Steering Committee will be responsible for making decisions by consensus, providing management guidance as required by the project/program manager, and approving project plans and revisions as requested. Additionally, the Steering Committee is defined as below:

- Decision-making authority; highest body for strategic guidance, fiduciary and management oversight and coordination
- Facilitates collaboration between participating UN organizations and host government for the implementation of the Joint Programme
- Includes senior programme managers of all signatories of the Joint Programme Document; may also include other members in observer capacity, such as civil society organizations; may be co-chaired by the Government and UN Resident Coordinator at country level
- Reviews and approves Joint Programme Document and annual work plans, provides strategic direction and oversight, sets allocation criteria, allocates resources, reviews implementation progress and addresses problems, reviews and approves progress reports budget revisions/reallocations, and evaluation reports, notes audit reports (published in accordance with each PUNOs' disclosure policy), and initiates investigations (if needed). It may be supported by a Secretariat/Support Office
- Meets at least semi-annually

Executives represent the project ownership and chairs the Steering Committee. The executive's role is to ensure that the project throughout its lifecycle is focused on achieving the objectives and delivering the outputs that will contribute overall to the outcomes. The executive ensure that the project gives value for money, ensuring a cost-conscious approach to the project, and balancing the demands of the beneficiary and supplier.

Senior supplier is a group representing the interests of the parties which provide funding and/or technical expertise to the project. The senior supplier's primary function within the board is to provide guidance regarding the technical feasibility of the project.

Senior beneficiary is a group of individuals representing the interests of those who will ultimately benefit from the project. The primary function is to ensure the achievement of the project's results from the perspective of project beneficiaries. The senior beneficiary is responsible for validating the needs and for monitoring the solutions to ensure they meet the targets and quality criteria.

Programme Management Unit has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the limits laid down by the Steering Committee. The Programme Management Unit is responsible for day-to-day management and decision-making for the project. The PMU will:

- Plan the activities of the project and monitor progress against the initial quality criteria;
- Mobilize goods and services to activities, including drafting ToRs and work specifications;
- Monitor events as determined by the Project Monitoring Schedule Plan, and update the plan as required;
- Manage requests for the provision of financial resources by UN agencies, using advance of funds, direct payments, or reimbursement using appropriate finance forms - the FACE (Fund Authorization and Certificate of Expenditures);
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;

- Responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified, submit new risks to the Steering Committee for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risk Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log;
- Prepare the Project Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit report to the Steering Committee;
- Prepare Annual Review Report, and submit to Steering Committee;
- Prepare the Annual Work Plan for the following year, as well as Quarterly Plans if required;
- Update the Atlas Project Management module if external access is made available;

Project Assurance supports the Steering Committee through independent project oversight and monitoring functions. The Project Assurance role will:

- Ensure that funds are made available to the project;
- Ensure that risks and issues are properly managed, and that the logs in Atlas are regularly updated;
- Ensure that critical project information is monitored and updated in Atlas, using the Activity Quality Assessment page;
- Ensure that Project Progress Reports are prepared and submitted on time and according to appropriate standards (format and content quality);
- Ensure that financial reports are submitted to UNDP on time, and that delivery reports are prepared and submitted to the Steering Committee;
- Perform oversight activities, such as periodic monitoring visits;
- Ensure that the Project Data Quality Dashboard remains green;

### **Role of the UN Resident Coordinator's Office**

The Resident Coordinator will strengthen authority and leadership of this joint programme by providing strategic guidance, advocacy and resource mobilization strategy to implement the programme. The Resident Coordinator will ensure that operational activities for development are focused on advancing sustainable development and that communication and advocacy are done to achieve the SDGs in a way that leaves no one behind and ensures respect for and protection of, human rights and gender equality.

The Resident Coordinator's Office (RCO) will ensure alignment between the UNDAP II result framework and the Joint Programme. RCO will also be responsible for the quality assurance of the programme as well as coordinating timely reporting of the results including support in data and financial aspects, results management and reporting to account for the UNDAP II.

The Lead Agency will share strategic meetings related to the Joint Programme that require the Resident Coordinator to participate and give leadership orientation.

## 7. Fund Management Arrangements

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The joint programme will adopt both the **Pass-through Modality** and **Parallel Fund Management Modality** to ensure efficiency and effectiveness in order to achieve a common result with different national counterparts. For funds received by SDF, UNDP will serve as both the Administrative Agent and Convening Agency.

Each participating UN organization has programmatic, financial, and reporting responsibility for its part of the joint programme. Therefore, existing structures will be utilized to the extent possible rather than creating new ones.

Both FAO and UNDP, as well as newly joining agencies if any, will operate in accordance with their own regulations, rules, directives and procedures. Each agency will assume full programmatic and financial accountability for its part of the joint programme, including evaluation and audits. Due consideration should be given to the need of dedicating sufficient human resources for such functions throughout the implementation period. All participating UN organizations should share the costs of coordination. The UNRCO will be responsible for ensuring alignment between the JP and the UNDP, ensuring quality assurance of the programme as well as coordinating timely reporting of the results including the financial aspects

**Budget Preparation:** Each participating UN organization will prepare a separate budget, consistent with its procedures, and covering the mutually agreed components of the programme it will manage. Since reporting needs to be by UNDG approved harmonized budget categories, it is preferable that the budget be set up in these categories. Responsibility should be assigned for preparing an aggregated/consolidated budget, showing the budget components of each participating UN organization/implementing partner(s). This will be done on an annual basis.

**Accounting:** Each UN organization will set up a separate ledger account for the Joint Programme and will account for the income received to fund its programme components in accordance with its financial regulations and rules. Since reporting needs to be by UNDG approved harmonized budget categories, the budget will be set up in these categories. Each Participating UN Organization (PUNO) will account for the funds distributed by the Administrative Agent (UNDP) in respect of its components in the Joint Programme in accordance with its financial rules and regulations.

**Fees:** As per guidance note, the Administrative Agent (UNDP) will allocate one percent (1%) of the amount contributed by donor(s), for its costs of performing its administrative functions. In cases where the Joint Programme does not meet the thresholds for establishment or the Joint Programme is subject to a non-cost extension, the Steering Committee will review and consider the inclusion of the remainder of the fee as direct costs. The Convening Agency (UNDP) will recover its direct costs related to its convening role, which is included in the Joint Programme budgetary framework.

**Transfer of funds:** The allocation of funds should follow established criteria, as outlined in the Joint Programme Document or in Steering Committee minutes and needs to be approved by the Steering Committee. Following Steering Committee instructions, supported by the appropriate documentation, and provided that the balance of donor contributions is sufficient, transfers will be made by the Administrative Agent to the participating UN organizations within 3-5 days. Direct transfer between PUNO of funds received from the AA in a pass-through modality is not allowed to avoid multiple cost recovery charges by UN organizations.

**Indirect Costs:** For funds operating under a Parallel Funding Modality, each participating UN organization will recover indirect costs in accordance with its financial regulations and rules and as documented in the funding agreement signed with the donor. For funds operating under a Pass-through Modality, each PUNO will recover indirect costs at the established rate of 7%.

**Revisions:** Revisions of the grants and contracts, such as no-cost extension, increase or decrease of total budget and reallocations between budget categories, will be handled through each participating UN organization's separate governing bodies and/or particular donor and are subject to the Terminal Obligation Date (TOD) and the Disbursement Date (DD). Changes of activities that affect outputs and outcomes must be approved by the Steering Committee, and the Joint Programme Document needs to be amended, the annual work plan revised and the budget framework adjusted to accommodate new or changed allocations.

**Operational closure:** Each PUNO informs the Administrative Agent (UNDP) in writing when all activities under the approved programmatic document have been completed. The operational end date is the date in which the last PUNO completes its activities and informs the Administrative Agent. If not all PUNOs have finished their activities by the end date envisaged in the Joint Programme document, then the programme cannot be closed yet and a (no-cost) extension has to be requested. A final narrative report, after the completion of the final year of the activities, is prepared by each PUNO and submitted to the Convening Agency (UNDP). The report shall be issued no later than four months of the year following the operational closing of the programme.

**Financial closure:** As part of the financial closure, each PUNO needs to return any unspent balance as well as interest for prior and current years to the Administrative Agent (UNDP), and report no expenditure in excess of funds transferred. After this occurred, the Administrative Agent will confirm the completion and close the programme allocation within its internal system. The Administrative Agent will return any unspent funds remaining in the Joint Programme account after the financial closure of the Joint Programme to the donor(s) or utilize them in a manner agreed upon between the AA and the donor(s), and approved by the Steering Committee. The financial closure process begins only after all participating UN organizations have satisfactorily closed all of their respective programmatic allocations. It generally takes 12 months following the AA's confirmation that all programmatic allocations have been financially closed. Since Joint Programmes have a tendency to grant non-cost extension, the Administrative Agent is entitled to a direct cost charge of USD 5,000 per year out of the different sources of funds of a given Joint Programme to cover the cost of continuing to render AA services for the period (rounded to whole years) that the operational life span of the Joint Programme (from the date of signing the Joint Programme Document up to actual operational end date of the Joint Programme) is extended beyond five years. This applies unless additional donor contributions are received during that period proportional to the amounts required for establishing a Joint Programme, and for the period (rounded to whole years) that the financial closure of the Joint Programme surpasses the maximum period of two years after operational closure of the Joint Programme due to delays of PUNOs in financially closing their part of the Joint Programme. This direct cost charge is meant as a concrete disincentive to Steering Committees and PUNOs for keeping extending the operational life time of PUNO projects and/or delaying its financial closure. For the funds operating under a Parallel Funding Modality, no expenses should be charged after operational closure. Between operational and financial closure, the implementing partner is required to identify and settle all financial obligations and to return any unutilized funds to the donor. The disposition of any balance of funds remaining at the end of programme implementation will be in accordance with the agreements between the participating UN organizations and the implementing partners as well as donors

where applicable. The financial closure of accounts of each participating UN organization will be done in accordance with each UN organization's rules and procedures, which in most instances takes place 12 months after the operational closure of the programme. Each participating organization shall issue a final certified financial report after all legal obligations are settled or terminated.

## 8. Monitoring and Evaluation and Reporting

The monitoring, evaluation and reporting of the joint programmes will be done under the overall UNDAP implementation arrangements including the results groups, the results framework and through UNINFO. The monitoring will also take into account operations and communications.

### Monitoring Plan

Monitoring will be done by each PUNO throughout the year. The joint programme will put in place a series of monitoring activities, as elaborated in below table. Annual monitoring and reporting are to be aligned with the UNDAP reporting period and Government fiscal year (July-June).

<i>Indicator</i>	<i>Responsible</i>	<i>Frequency</i>	<i>Methodology</i>	<i>Partners (if joint)</i>
<i>UNDAP Outcome Indicator 2.2: % of households using biomass as a source of energy for cooking Baseline: 83.3% (2014) Target: 54%</i>	<i>UNDP (Convening Agency)</i>	<i>Annual</i>	<i>National reports</i>	<i>FAO</i>
<i>UNDAP Output Indicator 2.2.1: Number of new Ha of forest restored with the support of UN. Baseline: 0 Ha Target: 10250 Ha (To be revised)</i>	<i>UNDP (Convening Agency)</i>	<i>Annual</i>	<i>Joint sector reviews (ENR sector), UNDP project annual report, FAO project annual report</i>	<i>FAO</i>
<i>UNDAP Output Indicator 2.2.3: No. of cooperatives and households involved in renewable energy. Baseline: 0 Target:</i>	<i>UNDP (Convening Agency)</i>	<i>Annual</i>	<i>FAO project annual report; UNDP project annual report</i>	<i>FAO</i>
<i>Indicator 1.1: % of farmers in the selected sites that demonstrate at least one climate smart farming technique Baseline 5% Target: 80</i>	<i>FAO</i>	<i>Semester</i>	<i>Quarterly report from MINAGRI/RAB; Field visit (annual)</i>	<i>MINAGRI, RAB</i>

Indicator 1.2: % of farmers in the selected sites that are using drought tolerant crop varieties Baseline 5 % Target: 80 %	FAO	Semester	Quarterly report from MINAGRI/RAB; Field visit (annual)	MINAGRI, RAB
Indicator 2.1: % of the farmers in the selected sites practice fish farming by 2023 Baseline 0% Target 30%	FAO	Semester	Quarterly report from MINAGRI/RAB; Field visit (annual)	MINAGRI, RAB
Indicator 3.1: % of FFS groups integrating youth and gender in the selected sites have been trained in Climate smart agriculture and demonstrate increased production Baseline 0% Target 100%	FAO	Semester	Quarterly report from MINAGRI/RAB; Field visit (annual); Survey (annual)	UNDP, MINAGRI/RAB, Meteo Rwanda, MoE
Indicator 3.2 % of the trained FFS farmers practice skills that are demonstrative of Climate Smart and nutrition sensitive agriculture Baseline 0% Target 60%	FAO	Semester	Quarterly report from MINAGRI/RAB; Field visit (annual); Survey (annual)	UNDP, MINAGRI/RAB, Meteo Rwanda, MoE
Indicator 4.1 % of farmers strengthened in improved productivity and healthier nutrition levels Baseline: 0% Target: 50%	FAO	Annual	Annual report; Survey	MINAGRI, RAB
Indicator 4.2 % Farmers with raised productivity and increased profitability within context of CSA Baseline: 0% Target: 80%	FAO	Annual	Annual report; Survey	MINAGRI, RAB
Indicator 4.3: % farmers with increased productivity and resilience to climate volatility through application of technologies and best practices in efficient water use	FAO	Annual	Annual report; Survey	MINAGRI, RAB

Baseline: 0% Target: 80%				
Indicator 4.4: % farmers provided with matching grants and have purchased and use irrigation equipment effectively Baseline: 0% Target: 90%	FAO	Annual	Annual report; Survey	MINAG RI, RAB
Indicator 4.5: % of individual farmers or farmers organizations supported in market linkages and can access to finance Baseline: 0% Target: 50%	FAO	Annual	Annual report; Survey	MINAG RI, RAB
Indicator 5.1: Bioenergy Assessment for the selected district completed and report available Baseline: NO Target: YES	FAO	Semester	Quarterly project report	RAB, MINAG RI
Indicator 5.2 Comparison of solar and bioenergy options completed and report available. Baseline: NO Target: YES	FAO	Semester	Quarterly project report	MINAG RI
Indicator 6.1: # of households in IDP model villages newly benefiting from green components based on the GV toolkit, disaggregated by sex of the head of household <sup>6</sup> Baseline: 0 Target: 200 (F: 100, M: 100)	UNDP	Annual	Annual project report from MoE; Joint Sector Review (ENR); field visit (mid- and end of project)	MoE, RHA, REMA
Indicator 7.1: Extent to which the data source-quality correlation of weather and climate data in the Maproom data bank is specified Baseline: Maproom onset	UNDP	Annual	Annual project report from Meteo Rwanda	Meteo Rwanda

<sup>6</sup> The programme will count the number of households anew from the start of the programme, however it is worth noting that up to 2018 the MoE have provided greening components to 12 IDP model villages.

definition is general (country wide) Target: Maproom onset definition specific for each climatic zones				
Indicator 7.2: # of tailored packages validated by key stakeholders Baseline:0 Target: 3	UNDP	Annual	Annual project report from Mete Rwanda	Meteo Rwanda, RAB, MINAGRI
Indicator 8.1: Comprehensive information dissemination system for farmers developed and functional Baseline: No Target: Yes	UNDP FAO	Semester	Quarterly project report from Mete Rwanda and MINAGRI; system website	Meteo Rwanda, MINAGRI, RAB, Districts, ICT Chamber
Indicator 8.2: # of farmers in pilot areas receiving climate information with farming advice Baseline: 0 Target: 100/District (50:50 men and women)	UNDP FAO	Semester	Quarterly project report from Mete Rwanda and MINAGRI; app registration data	MINAGRI, RAB, District, MINEMA
Indicator 8.3: # of farmers using newly developed weather information to improve crop productivity in selected area Baseline: 0 Target: 60 farmers/District using newly developed weather information to improve crop productivity	UNDP	Annual	Quarterly project report from Mete Rwanda, Survey to farmers, RAB, sector agronomists (annual)	Meteo Rwanda, MINAGRI, RAB, District, Farmers
Indicator 8.4: # of RAB and target district officials supported on the usage of climate information Baseline: 0 Target: 50 (M 25; F	UNDP	Semester	Quarterly project report from Mete Rwanda,	Meteo, MINAGRI, RAB, District,



25)				
Indicator 9.1: # of GCF project proposal 1) developed by ENR sector 2) approved by the NDA. 3) Amount of resources newly mobilised from the GCF [US\$ millions]  Baseline: 1) 0, 2) 0, 3) 0  Target: 1) 2, 2) 2, 3) 30	UNDP	Semester	Quarterly report from MoE	<u>MoE</u>

### Evaluation

The joint programme will have a joint mid-term and final evaluation in 2021 and 2023, respectively. Results will be evaluated against the UNDP Outcomes and Outputs as outlined in the M&E plan.

### Reporting

The Joint Programme will have one consolidated annual report (including programmatic and financial reports), which should be harmonized with the One UN Country Results Report to the extent possible under guidance of the Resident Coordinator's Office (RCO). All reports will be endorsed by the Steering Committee and will be shared with all relevant stakeholders through the Steering Committee. The Administrative Agent (UNDP) will prepare certified annual and final financial reports consisting of the reports submitted by each PUNO and a report on "Source and Use of Funds." The consolidated reports will be shared with each donor that has contributed to the Joint Programme account, in accordance with the timetable in the Standard Administrative Arrangement. The reports shall use UN approved harmonized budget categories: (1) Staff and other personnel costs, (2) Supplies, commodities, materials, (3) Equipment, vehicles and furniture, including depreciation, (4) Contractual services, (5) Travel, (6) Transfers and grants counterparts, (7) General operating and other direct costs, (8) Indirect support costs. The narrative reports should describe in a coherent manner what is being done jointly at outcome and output level. The generic annual and final programme narrative progress report template shall be used.

Each PUNO (FAO, UNDP) will prepare narrative reports in accordance with the narrative reporting template and financial reports in accordance with its financial regulations, rules and operational policy guidance, using the UN harmonized budget categories. The narrative report will be shared with UNDP, which has the role of both the Administrative Agent and Convening Agency.

In addition to annual reports, quarterly or semi-annual field updates, e.g., to the Steering Committee, are encouraged for effective management of Joint Programmes, though these updates are unofficial (i.e., not certified by agency headquarters) and may involve a level of detail not meant to be captured in official annual reports.

## **9. Legal Context or Basis of Relationship**

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### UNDP

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of (country) and UNDP, signed on 2nd February 1977. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

Consistent with the Article III of the SBAA [or the Supplemental Provisions], the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/aq\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml). This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document.

Consistent with UNDP’s Programme and Operations Policies and Procedures, social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).

The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

### 10. Annual Work Plan and Budget

Work Plan for:  
Period (Covered by the WP): January – December 2019

UN organization	Activities	TIME FRAME				Implementing Partner	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Source of Funds	Budget Description	Amount
FAO	Demonstrate a mixed farming system		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant Training materials	44,000
FAO	Diversify crop, livestock and aquaculture in an integrated system		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, training workshops, training materials (seed, land, fish, livestock etc)	18,000
FAO	Demonstrate multiple benefits resulted from crop, aquaculture and small livestock integration		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, training materials	10,000
FAO	Test drought tolerant varieties and introduce them in drought prone areas (Bugesera and Nyagatare districts)		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, training materials	15,000
FAO	Integrate community driven riparian environmental conservation and crop intensification programme		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, training materials	20,000
FAO	Demonstrate soil moisture conservation technologies		x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, Training	18,000

FAO	Demonstrate Integrated Pest Management (IPM) for judicious use of pesticides	x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, Training demonstration materials	15,000
	Demonstrate Solar powered small scale irrigation systems on high value crops in the identified drought prone areas	x	x	x	RAB (MINAGRI)	FAO/SDF	Consultant, Training workshops	10,000
FAO	Use efficiently the available water ponds by introducing cat fish farming and integrating activities in a proper manner	x	x	x	RAB (MINAGRI)	FAO/SDF	Consultants Training inputs materials equipment	110,000
FAO	Maintain water ponds to prevent them from collapsing	x	x	x	RAB (MINAGRI)	FAO/SDF	Maintenance	25,000
FAO, UNDP	Develop curriculums for youth	x	x	X	RAB (MINAGRI)	FAO/SDF	Consultant, workshop	10,000
FAO	Conduct participatory training on climate smart and nutrition sensitive agriculture and agroecological approaches through Farmer Field Schools (FFS) giving priority to women and youth	x	x	x	RAB (MINAGRI)	FAO/SDF	Consultants, FFS Master trainers, Training workshops, Study plots	20,000
FAO	Organize Farmer Exchange visits for sharing experiences and good practices	x	x	x	RAB (MINAGRI)	FAO/SDF	Exchange visits	10,000
FAO	Consultant	x	x	x	RAB (MINAGRI)	FAO	Consultant, workshops	80,000

FAO	Conduct BEFS Assessment at National Level		x	x	x								Consultant, Workshops	20,000
FAO	Conduct BEFS Capacity Building and Multistakeholder Institutional Dialogue		x	x	x								Consultant, workshops	30,000
FAO	Establish synergies between bioenergy and solar energy solutions for decentralized energy production		x	x	x								Consultant, workshops	30,000
UNDP	Baseline study of existing IDP model villages		x										Consultants Travel	15,000
UNDP	Capacity building of districts on the human-centered design approach to the GV toolkit		x	x									Venue	5,000
UNDP	Provision of hardware to 1 village												Equipment Cash for work	100,000
UNDP	Pilot community-based youth investment in agri-businesses			x	x								Consultant Microgrant	150,000
UNDP	Set up of automated rain gauges and automatic weather stations in gap areas			x	x								Equipment and spare parts, travel	20,000
UNDP	Pilot PPP to maintain meteorological stations		x	x	x								Travel, technical service	30,000
UNDP	Validation of the Radar data with ground weather observations in selected districts and related areas			x	x								Consultancy, Workshop, Travel	15,000
UNDP	Test and validate different merging techniques in the generation of the Maproom portal data library to improve usability for agriculture		x	x	x								Consultant Venue, travel	14,000

UNDP	Co-produce the information package between Meteo Rwanda, MINAGRI and other key stakeholders to meet the needs of farmers	weather	between	Meteo Rwanda, RAB	x	x	x	x	x	Meteo Rwanda, RAB	SDF	Venue, travel	20,000		
														Activities	Implementing Partner
UNDP, FAO	Improve the visualisation of weather and climate information (Integrate the app and system with the FAO Android app and voice system, etc)				x	x	x	x	x	Meteo Rwanda, RAB	SDF	Consultant, training, maintenance cost	10,000		
UNDP, FAO	Organise backstopping exercises and improve users feedback mechanisms				x	x	x	x	x	Meteo Rwanda, RAB	SDF	Venue, travel	10,000		
UNDP	Support to project M&E				x	x	x	x	x	MoE	UNDP (SCENR)	Staff	44,000		
UN organization	Activities	TIME FRAME				Q1		Q2		Q3		Q4		PLANNED BUDGET	
Co-funding on programme activities	Contribution to RCO	x	x	x	x	x	x	x	x	MoE	UNDP	-	164,000		
JP Admin cost for lead agency	UNDP Programme management costs	x	x	x	x	x	x	x	x	UNDP	SDF	Staff cost	4,000		
FAO Programme management costs	Year 1 Total budget: USD 978,247	x	x	x	x	x	x	x	x	UNDP	SDF	Staff cost	12,263		
	Total UNDP: USD 485,130 (\$208,000 co-funding through ENR Sector Programme, \$277,130 SDF)	x	x	x	x	x	x	x	x	UNDP	SDF	Staff cost	44,000		
	Total FAO: USD 476,854 (\$190,741 co-funding, \$286,112 SDF)	x	x	x	x	x	x	x	x	SDF	FAO	Staff cost	18,130		
	Total Admin: USD 16,263 (SDF)	x	x	x	x	x	x	x	x	FAO	FAO	Staff cost	21,854		