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United Nations Development Programme

Project title:	Forest Landscape Restoration in the Mayaga Region	
Country: Rwanda	Implementing Partner: REMA (Rwanda Environment Management Authority), Gisagara, Ruhango, Nyanza and Kamonyi Districts	Management Arrangements: National Implementation Modality (NIM)
LININD CAMAAA		

UNDP Strategic Plan Output: UNDP Strategic Plan Output 2 (2018-2021): 2.4.1 Gender-responsive legal and regulatory frameworks, policies and institutions strengthened, and solutions adopted, to address conservation, sustainable use and equitable benefit sharing of natural resources¹, in line with international conventions and national legislation

<u>Output indicator</u>: Indicator 2.4.1 Number of countries with gender-responsive measures in place for conservation, sustainable use, and equitable access to and benefit sharing of natural resources, biodiversity and ecosystems: Policy frameworks; Legal and regulatory frameworks; Institutional frameworks; Financing frameworks

UNDP Social and Environmental Screening Category: Moderate	UNDP Gender Marker: 2
Atlas Project ID (formerly Award ID): 105937	Atlas Output ID: 106918
UNDP-GEF PIMS ID number: 5702	GEF ID number:
Planned start date: November 2019	Planned end date: November 2025

PAC meeting date: TBA

Brief project description: Rwanda lost about 64 percent of its natural forests between 1960 and 2007, declining from 659,000 ha to 240,747 ha. Mayaga region harbours 0.14 percent of natural forests and 10 percent of man-made plantations of Rwanda's total forested area. The 555ha of natural forests and the many and scattered patches of indigenous forests host important biodiversity and carbon stocks and provide critical watershed services to the agricultural landscapes surrounding them. Forest degradation has taken three pathways in Mayaga: quantitative loss; qualitative loss, and fragmentation, caused largely by encroachment for agriculture and overharvesting of forest products. Adoption of Forest Landscape Restoration as an overarching integrated landscape management strategy is hindered by: a) Inadequate mechanism for inclusive participatory development of knowledge based shared Forest Landscape Restoration; c) Inadequate implementation of sustainable land management, sustainable forest management, biodiversity conservation measures and poor uptake of diversified and efficient energy options. The project will provide a coordination mechanism for Forest Landscape Restoration in four districts (Karnonyi, Ruhango, Nyanza, Gisagara).

Executed by the Rwanda Environment Management Agency in partnership with key Ministries, the six year project total cost is US\$ 32,706,365 consisting of a GEF Grant of \$6,213,538, UNDP Grant of \$1,000,000 and Government of Rwanda Co-fin of \$25,493,365. It will have three Outcomes: a) Forest restoration plans with institutional and legislation frameworks guiding afforestation, natural resources management and agriculture; b) Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge management; c) Implementation of Forest Landscape Restoration plans secures 555 ha of natural

¹ Includes oceans and marine and freshwater ecosystems, forests, biodiversity and ecosystems, land rights, and management of chemicals and waste.

forests, puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the New Forest Company through co-finance, increases productivity of agriculture and plantation forests on 25,000 ha and 1,000 ha respectively; and reduces wood consumption by at least 25%. The project will deliver four Forest Landscape Restoration plans covering 263,270 ha, leading to avoided emissions of 4,700,825 tons of carbon dioxide equivalent in five years and 12,950,839 tons in indirect GHG emissions avoided in 20 years.

USD: 6,213,538
USD: 1,000,000
USD: 7,213,538
USD 6,954,989
USD 3,867,597
USD 2,149,660
USD 5,959,238
USD 1,929,625
USD 1,097,967
USD 2,060,155
USD 1,474,135

(2) Grand-Total Project Financing (1)+(2)

USD: 32,706,904

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ACRONYMS

AfDB	African Development Bank
AFR100	Commitment by African Governments under the Bonn Challenge to restore 100 million hectares of degraded land and forests by 2030
AM0041	A methodology for calculating carbon emissions savings titled "Mitigation of Methane Emissions in the Wood Carbonization Activity for Charcoal Production"
BD	Biodiversity Focal Area of the Global Environment Facility
CBD	United Nations Convention on Biodiversity
CBE	Community based enterprises (CBE)
CBO	Community Based Organization
CC	Climate Change Focal Area of the Global Environment Facility
CDM	Clean Development Mechanism
CEO	Chief Executive Officer (of the Global Environment Facility)
CMIP	Climate Monitoring International Partnership
CSOs	Civil Society Organizations
DDPs	District Development Plan(s)
DDS	District Development Strategies
DFID	Department for International Development
DFMP	District Forest Management Plan
DFO	District Forest Officers
EAC	East Africa Community
EB	Executive Board
EDPRS	Economic Development and Poverty Reduction Strategy
EIA	Environmental Impact Assessment
EICV	Enquête Intégrale sur les Conditions de Vie des ménages (Integrated Household Living Conditions Survey)
EMP	Environment Management Plan(s)
ENSO	El Niño – Southern Oscillation
ESD	Energy for Sustainable Development
FCPF	Forest Carbon Partnership Facility
FFS	Farmer Field School
FIP	Forest Investment Program
FLIF	Forest and Landscape Investment Forum
FLR	Forest Landscape Restoration
FONERWA	Fund for Environment and Climate of Rwanda
FSP	Full Size Project
GDP	Gross Domestic product
GEBs	Global Environmental Benefits
GEF	Global Environment Facility
GEF 5	The Fifth cycle of funding under the Global Environment Facility
GEF 6	The Sixth cycle of funding under the Global Environment Facility

GEF TF	Global Environment Facility Trust Fund
GEFSEC	GEF Secretariat
GGCRS	Green Growth and Climate Resilience Strategy
GHG	Green House Gas
GMO	Gender Monitoring Office
GPFLR	Global Partnership on Forest and Landscape Restoration
GOR	Government of Rwanda
HA	Hectares
HHD	Households
IA	Implementing Agency
ID	Identification
IUCN	International Union for Conservation of Nature
IWRM	Integrated water resource management
JADF	Joint Action Development Fora
KM	Kilometer
LAFREC	Landscape Approach to Forest Restoration and Conservation
LD	Land Degradation Focal Area of the Global Environment Facility
LDCF	Least Developed Countries Fund
LPG	Liquefied Petroleum Gas
LULUCF	Land Use, Land-Use Change and Forestry
M&E	Monitoring and Evaluation
MEA	Multilateral Environmental Agreement(s)
MIGEPROF	Ministry of Gender and Family Promotion
MINAGRI	Ministry of Agriculture
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance
MINILAF	Ministry of Lands and Forestry
MININFRA	Ministry of Infrastructure
MINIRENA	Ministry of Environment and Natural Resources
MoE	Ministry of Environment
MRV	Measurement, Reporting and Verification (of REDD+ activities)
NAPA	National Adaptation Programme of Action under the United Nations Framework Convention on Climate Change
NBSAP	National Biodiversity Strategy and Action Plan
NFC	New Forest Company
NFP	National Forest Policy
NGO	Non-Governmental Organization
NIRDA	National Industrial Research and Development Agency
NPFE	National Portfolio Formulation Exercise
NST	National Strategy for Transformation
NTFP	Non-Timber Forest Products

PA	Protected Area
PIF	Project Identification Form (GEF)
PIR	Project Implementation Report
PMC	Project Management Cost
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant (GEF)
PPP	Public Private Partnership(s)
PRODOC	Project Document
PRSP	Poverty Reduction Strategy Paper
PSF	Private Sector Federation
R&D	Research and Development
RAB	Rwanda Agriculture Board
RDB	Rwanda Development Board
RAWF	Rwanda Water and Forestry Authority
RBS	Rwanda Bureau of Standards
REMA	Rwanda Environment Management Agency
RF	Rwanda Franc
RLMUA	Rwanda Land Management and Use Authority
RNRA	Rwanda Natural Resources Authority
ROAM	Restoration Opportunities Assessment Methodology
RWFA	Rwanda Water and Forestry Authority
SACCO	Savings and Credit Cooperatives
SDG	Sustainable Development Goal(s)
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
STAP	Scientific and Technical Advisory Panel (of the GEF)
tCO2	Tons of Carbon Dioxide Equivalent
TA	Technical Assistance
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit
	ent United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNREDD	<i>United Nations</i> Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation
USD	United States Dollar
VUP	Vision Umurenge Program
WB	The World Bank
WRI	World Resources Institute

1 DEVELOPMENT CHALLENGE

Situated in the heart of the Albertine Rift, Rwanda is a biodiversity and forests (carbon stocks) hotspot; well-known flagship species include gorillas and chimpanzees, currently classified as endangered in the IUCN Red List of Threatened Species. The country is home to 40% of Africa's mammal species (402 species), 1,061 bird species, 293 amphibian species, and 5,793 species of higher plants (280 endemics in the region)². It is also recognized for hosting more endemic mammals, birds, butterflies, fish and amphibians than anywhere else in Africa³. In addition, more than 80% of Rwanda's territory is within the Lake Victoria Basin; most of the waters coming out of the country are channelled by the Kagera River into Lake Victoria, a globally recognized freshwater biodiversity hotspot. Most of the biodiversity is concentrated in three national parks: the Volcanoes National Park, the Nyungwe National Park, and the Akagera National Park. However, there is a great deal of biodiversity outside these PAs, especially plant biodiversity in forests found in the productive landscapes in the savannah areas covering most of the Southern Province, such as the Mayaga region (Fig. 1).

The country lost about 64 per cent of its natural forests between 1960 and 2007, declining from 659,000 ha to 240,747 ha⁴. Current forest cover stands at a high 29.5%, consisting of 10.8 per cent (258,066 ha) natural forests and 18.4% (438,336 ha) of plantations and tree cover in agroforestry systems⁵. Although forest cover has registered a growth of 1% per year for the last decade, forest distribution is uneven and forest regeneration is skewed. Most of the forests are found in the west, with fewer forests in the East and in the Mayaga regions, where forest cover is a low 5%.

1.1 THREATS TO BIODIVERSITY, CARBON STOCKS AND OTHER ECOSYSTEM SERVICES IN RWANDA

Agriculture expansion threatens forests biodiversity and the ability of the ecosystem to provide services to livelihoods and economic development. 90 percent of the population and 70 percent of the country's land area are dedicated to subsistence agricultural production, although only 52% of the land is considered suitable arable land⁶. Agriculture represented 32 percent of Rwanda's GDP in 2017, employing 67.6 percent of the country's population (79.1 percent women and 54.4 percent men). In 2010, agriculture represented 45 percent of foreign exchange earnings (mostly from tea and coffee) and was the main source of income for 87 percent of Rwandans, contributing the largest share of a household's income of 46 percent in 2011⁷. In the four target districts off-farm activities have a lower contribution to wages than in other parts of the country, at 9.8 versus a national average of 16.9⁸. Under these circumstances, poverty and food insecurity are linked by poor agriculture production and dependence on rain-fed agriculture in small production units⁹. The subsistence nature of agriculture drives farmers to cultivate continuously, which depletes soil nutrients and reduces future crop yields. Cultivating steep slopes with inadequate ground cover to prevent erosion exacerbates the problem. The FAO estimates that as much as 40% of cultivated land in Rwanda is at risk of severe erosion and requires anti-erosion investments before cultivation begins. Some reports have estimated that as much as 10 tons of soil is lost

² Chemonics International Inc. 2003, MINITERE 2005, Rwanda Environment Outlook, 2009.

³ Chemonics International Inc. 2003, MINITERE 2005, Rwanda Environment Outlook, 2009

⁴ GO FAO (2016). Global Forest Resources Assessment 2015: How Are the World's Forests Changing? FAO, Rome

⁵ REMA (2015). Rwanda State of Environment and Outlook. MINIRENA, Kigali

⁶ National Institute of Statistics of Rwanda (NISR) (2014): Ministry of Finance and Economic Planning (MINECOFIN) [Rwanda], Labour Statistics Framework of Rwanda

⁷ National Institute of Rwanda, 2012: EICV - 3 and DHS4 (2010/11) Preliminary Results

⁸ UNDP, 2018: Baseline Assessment for Mayaga Landscape Restoration Project: Socio -Economic Assessment Report

⁹ Habiyambere, T., Mahundaza, J., Mpambara, A., Mulisa, A., Nyakurama, R., Ochola, W. O., et al. (2009): Rwanda State of Environment and Outlook. Kigali: REMA.

per hectare each year, and that more than 14 million tons of humus and top layers of soil flow directly into rivers and streams that are not adequately protected, ending up in Lake Victoria¹⁰. Moreover, available land is highly degraded. In 2011, the FAO classified 40 percent of Rwanda as being at very high or high risk of erosion, and 75 percent as "highly degraded". Indeed, according to the Integrated Household Living Conditions Survey number four (EICV 4), in 2014, 16.8 percent of Rwanda's land was affected by some kind of source of degradation.

Forest resources are also threatened by overharvesting for fuel wood. Approximately 86% of primary energy in Rwanda comes from biomass, in the form of fire wood (57%) and charcoal (23%), together with smaller amounts of crop residues and peat (6%)¹¹. Wood (biomass) accounts for 93% of fuel use in rural areas and 45% in urban zones, where charcoal accounts for 51%¹². The Global Alliance estimated that in 2012, the annual demand for woody biomass in Rwanda was at 2.9 Million tons (Mt), which is more than double the available sustainable production of 1.1 Mt. The World Bank (2016) cites the estimated sustainable wood-fuel supply as between 1.5 and 2.5 MT/year or 55 to 95% of demand. The United Nations Framework Convention on Climate Change (UNFCCC) estimates the non-renewable fraction of the biomass at 98% in Rwanda, pointing to very high unsustainable harvest of biomass¹³. Prices of charcoal have increased rapidly in recent years, generating negative spill over effects on the urban economy, and suggesting that all wood fuel production may be more costly¹⁴.

Although at the national level over 80% of the firewood and charcoal comes from privately operated plantations of eucalyptus trees and other small-scale agro forestry programs, the balance probably comes from natural forests. Nevertheless, this level of demand results in overharvesting of both natural and planted forests, preventing the country from achieving the national targets of 30% forest cover¹⁵ and 85% agroforestry cover on productive landscapes. Illegal exploitation of *Osyris lanceolata* has worsened the situation. Local villagers reported that tens of trucks transport tons of this species every year¹⁶. The forests are also threatened by invasive species of *Lantana camara* which cover big spaces around and inside many of the natural and plantation forests.

Climate change: Forests and other ecosystem services are threatened by progressive changes in climate and climate variability, as these combine with the impacts of unsustainable practices as outlined above. Rwanda's current climate is complex, with wide variations across the country and with very strong seasonality, making the country highly vulnerable to current climate variability and natural hazards. It is particularly affected by floods and landslides and periodic droughts, driven by El Niño – Southern Oscillation (ENSO) events. The past decade experienced increased climate and other risks such as increased occurrence of extreme drought and floods, and increased incidence of soil erosion and landslides, lowering of lake and river water levels, and loss of biodiversity, decrease in agricultural productivity, worsening food security and malnutrition, spreading of diseases, and human population migration. Prolonged cyclical droughts are frequent in the east and southeast, especially in Mayaga and Umutara.

Furthermore, projections of climate change in Rwanda are hindered by the high heterogeneity (terrain, climate) and the lack of long-term meteorological data. However, the limited projections predict an increase in temperature of 2.5°C by the 2050s. Changes in precipitation are more uncertain, though there

- ¹¹ Guidelines to mainstream in Climate Change Adaptation and Mitigation in Energy and Infrastructure Sector, REMA 2011
- ¹² Word Bank Documents and Reports, Rwanda Improved Cook stoves Project, The World bank Project, 2016 Project ID P158411 ¹³ Ibid
- ¹⁵ This includes 10% natural forest and 20% plantation forests
- ¹⁶ REMA, 2015: Threatened Terrestrial Ecosystems and Species.

¹⁰ Habiyambere, T., Mahundaza, J., Mpambara, A., Mulisa, A., Nyakurama, R., Ochola, W. O., et al. (2009). Rwanda State of Environment and Outlook. Kigali: REMA

are some indications of increasing variability¹⁷. The Climate Monitoring International Partnership (CMIP3) projections indicate average temperature will increase, higher average annual rainfall (under most models), with the intensity / frequency of heavy rainfall extremes also increasing, but highly uncertain signals for dry periods/drought. As most agriculture in the country (and Mayaga) is rain fed, people rely on the rains to survive. This, combined with its current level of development and the country's mountainous landscape, makes Rwanda particularly vulnerable to climate variability and change. A recent vulnerability assessment ranked southern province "medium" in terms of overall vulnerability index as compared to the other regions of Rwanda. This is because although exposure and sensitivity are quite high, adaptive capacity is considered quite effective, which mitigates the other two factors. Despite this, a 2018 vulnerability assessment using the Community Based Resilience Assessment (CoBRA), overall, communities consider that vulnerability at the household and community levels have increased in the last 10 years¹⁸. This is mostly because they have not been able to cope with the impacts of climate change, while population pressure on natural resources has increased.

1.2 PROJECT AREA AND THREATS TO BIODIVERSITY, ECOSYSTEMS AND CARBON STOCKS IN THE MAYAGA

The project will be implemented in four districts in the Mayaga landscape: Kamonyi, Gisagara, Ruhango and Nyanza (Figure 1 shows the map of Mayaga; Table 1 shows basic statistics; Annex 12 provides a profile and the socioeconomics baseline data). Mayaga region is in the Southern Province, which is one of the five provinces of Rwanda. The province covers an area of 596,300 ha, with a population of 2,589,975 inhabitants (census of 2012) and population density of 430/km²¹⁹. The Province has eight districts: including the four targeted by the project: 1) Gisagara, 2) Huye, 3) Kamonyi, 4) Muhanga, 5) Nyamagabe, 6) Nyanza, 7) Nyaruguru and 8) Ruhango (See map in Figure 1). The four districts targeted by the project cover an area of 263,270 ha and have a population of 1,293,373 (Table 1). According to REMA²⁰, the Southern Province held 36 per cent of the country's forests in 2015, amounting to 29,913.64 ha; 98.1% of it is plantation, planted with mainly Eucalyptus, Pinus, Callitris, Cypress, Grevillea and others. Of the four districts, Nyanza has the highest percentage of the natural forest (Table 2) while Kamonyi is well below the national poverty line (Table 3).

The many and scattered patches of indigenous forests covering a total area of 555 ha are particularly important. In addition to hosting important plant biodiversity and carbon stocks, they provide critical watershed services to the agricultural landscapes surrounding them (Table 1). Nyanza district comprises the most important rivers in the country: Akanyaru and Mwogo Rivers. Several other streams form tributaries of the main rivers. Apart from permanent rivers, Nyanza District has several seasonal streams especially in the Eastern part.

The Kibirizi-Muyira natural Forest (354 ha) is made up of two separate but neighbouring relict savanna forests whose connectivity has declined due to settlement in the corridor which connected them in the past. According to the Rwanda Natural Resources Authority²¹, these forests are rich in plant species dominated by 50 tree species, 43 herbs, 10 lianas, 9 shrubs and 7 species of grasses characteristic of low altitude savannas among which endemics like orchids are found. They are also home to nine species of mammals including *Cercopithecus aethiops* (Vervet monkey, Inkende), *Poelagus marjorita* (Hare, Urukwavu), *Viverra civetta* (African civet, Impimbi), *Felis serval* (Imondo), *Genetta servalina* Servaline

¹⁷ Baseline Climate Change Vulnerability Index for Rwanda: Rwanda. Environment Management Authority, Kigali, 2015

¹⁸ UNDP, 2018: Preparation of Full Project Document for the GEF- Forest Landscape Restoration in the Mayaga Region, Rwanda "Baseline climate change vulnerability assessment

¹⁹ Republic of Rwanda (2016). Integrated Household Living Conditions Survey 4- Environment and natural resources

²⁰ Rwanda Natural Resources Authority, 2017: Inventory of State and District Man-Made Forests in the Eight Districts of Southern Province) – the basic source is the 2012 forest map

²¹ RNRA (2012): Rwanda Forest Cover Mapping Using High Resolution Aerial Photographs

genet (Urutoni), Herpestes ichneumon (Mongoose, Umutereri), Canis adustus (Jackal Umuhari) and unidentified Rats (imbeba)²². One bird species, 'Grey-crowned Crane (Balearica regulorum), is cited in the IUCN red list as a vulnerable species, while some large species such as Ross's Turaco (*Musophaga* rossae), Red-chested cuckoo (*Cuculus solitaries*), and Brown Parrot (*Poicephalus meyeri*) occur widely in the forests²³. The fauna in the region has been progressively depleted following the clearing and destruction of natural forests. In Kamonyi for example, many animal species such as gazelle, jackal and hare have completely disappeared. Despite this, there are still some remaining amphibian, reptile and bird species. These and other forest patches are important carbon stocks. The 555 ha of natural forests currently stores 200,345 tCO₂ yr⁻.

Although arable land is fertile in Mayaga region, many areas are affected by land degradation and are suffering soil loss, deforestation and forest degradation, with accompanying loss of carbon stocks. Cultivation is taking place in some very steep hills (Fig. 2), for example Ijuru rya Kamonyi and "Cubi na Marenga". Some wetlands have been converted into farms without appropriate conservation measures; some river banks have been cultivated and forests have been converted into farms. Perennial crops (bananas and coffee) are being replaced by annuals (tubers such as cassava), making the land more susceptible to soil erosion, and carbon loss. Although the country as a whole has increased forest cover in the last ten years, this has not been so in the four Districts targeted by the project, where encroachment into the forests is reported to have increased in the past 10 years²⁴, causing habitat fragmentation, forest degradation and loss of biodiversity. Ninety nine percent of the households sampled reported that they collect firewood from the public and private forests, while only one percent collected firewood from lands owned by the household; causing further decline in forest cover (Table 4). In some areas there is no demarcation between farms and the many small forest patches dotting the landscape. This has increased vulnerability of livelihoods in the four districts. In Mayaga, on average 22.16 percent of land was affected by floods, mountain slides or destructive rains. The percentage was particularly high in Ruhango (32.6 percent) and Kamonyi (26.8 percent), critical also in Nyanza (17.27 percent) and important, but lower in Gisagara (11.98 percent)²⁵.

Mayaga landscape has therefore experienced loss of biodiversity at the ecosystem level, where extinct habitats, species assemblages, and natural processes have steadily diminished or degraded in quality, weakening the fabric of ecological processes and prospects of sustaining economic growth²⁶. Ecosystems degradation has taken three pathways in Mayaga: i) quantitative loss – leading to a decline in areal extent of discrete ecosystem types. This translates to loss of carbon stocks where forests are lost; ii) qualitative loss, leading to degradation in the structure, function, or composition of several ecosystems; and iii) fragmentation, caused largely by encroachment for agriculture²⁷. Rich in agricultural production.

District	Size	Population	Number of	% households
	(ha)		villages	with electricity
Kamonyi	65,550	342,792 - 51.5% female, 49.5 male	317	11
Ruhango	62,680	304,390 - 52.4% female, 47.6 % male	533	11
Nyanza	67,120	323,388 - 50.25% female, 49.75% male	420	17
Gisagara	67,920	322,803 - 53.4% female, 46.6% male	524	8

Table 1: Basic statistics of the four districts targeted by the project

²² RNRA (2012): Rwanda Forest Cover Mapping Using High Resolution Aerial Photographs

23 REMA 2015: Threatened Terrestrial Ecosystems and Species

26 REMA 2015: Threatened Terrestrial Ecosystems and Species

²⁴ Gisagara, Kamonyi, Nyanza and Ruhango District Development Plans for 2014-2015

²⁵ Baseline Climate Change Vulnerability Index for Rwanda: Rwanda. Environment Management Authority, Kigali, 2015

²⁷ Habiyambere, T., Mahundaza, J., Mpambara, A., Mulisa, A., Nyakurama, R., Ochola, W. O., et al. (2009). Rwanda State of Environment and Outlook. Kigali: REMA

Total	263,270	1,293,373	· · · · ·	 1 794	11.75	
				 1,794	11.75	1

Table 2: Forest distribution per district in the project area (2012)

District	Natural Forests		Plantations ²⁸		
	Ha	%	Ha	%	
Gisagara	38.35	6.91	7,757.6	26.42	
Nyanza	489.46	88.18	7,137.68	24.31	
Ruhango	3.19	0.57	6,857.29	23.36	
Kamonyi	24.04	4.33	7,606.03	25.91	
Total	555.04	100.00	29,358.6	100.00	

Table 3: Poverty and extreme poverty in Rwanda and target districts, 2016/2017²⁹

Area	Poverty (percentage)	Extreme poverty (percentage)
Rwanda	40	16.3
Gisagara	55.6	25.6
Nyanza	46.5	16
Ruhango	38	15
Kamonyi	22.3	8.7

Table 4: Sources of Energy for Cooking for Samples Household

District	Percentage using wood	Percentage using biogas	Percentage using charcoal	Percentage using LPG	Percentage using Solar	Percentage using Electricity
Kamonyi	80	0.6	18.4	-	-	-
Nyanza	94	0.3	5	0.7	-	-
Gisagara	99	1	-	-	••	-
Ruhango	55	0.5	40	3	-	-

 $^{^{28}}$ Plantations coverage does not include the category of "others" shown in table 4 29 Source : EICV 5 (2016/2017)



Figure 1: Maps of Mayaga region in Rwanda and land cover of the region

Figure 2: Cultivation on Hilltops in Rwanda causing deforestation and soil erosion



Long-term vision and barriers to achieving it: The desired long-term situation is to restore the ecological functionality and biological productivity of the deforested landscapes of the Mayaga region, to enhance their ability to adequately meet multiple objectives such as carbon storage and forest biodiversity conservation, resilience of agricultural production and livelihoods. This will be delivered via establishment of conditions to enable the use of forest landscape restoration in four pilot districts, as a strategy for increasing tree cover from the current low 5% to at least 10% (in 20 years), increasing agricultural productivity by at least 25% in five years, securing current carbon stocks of 4,700,825 tCO2e, increasing management of biodiversity in 555 ha (including increased levels of protection for biodiversity in 354 ha), and simultaneously improving resilience of livelihoods through diversification of energy and income sources. To achieve this, a strategy for restoration is needed, specifying long-term objectives negotiated and agreed by the relevant stakeholders; capacity is needed for implementation of the plan and the management of ecological, social, and economic interactions on the landscape to deliver positive synergies and mitigate negative trade-offs; and the policies and markets to support diverse landscape objectives.

1.3 BARRIERS

Adoption of FLR as an overarching integrated landscape management strategy in the Mayaga region is hindered by the following key barriers: a) Inadequate mechanism for inclusive participatory development of knowledge based shared FLR objectives; b) Inadequate incentives, individual and institutional capacity for adoption of SLM/SFM practices, protection of biodiversity and removal of deforestation from energy systems at many levels; c) Inadequate implementation of SLM, SFM, biodiversity conservation measures and poor uptake of diversified energy options. The barriers are described below.

Barrier 1: Inadequate mechanism for inclusive participatory development of knowledge based shared FLR objectives at landscape level ³⁰

Although Rwanda has committed to the adoption of FLR nationwide under the Bonn Initiative, where it has pledged to increase forest cover to 30%, the system for integrated landscape management (regulatory and institutional frameworks) are weak, especially at the district levels. Despite the development of indicators under the National Forest Strategy, paper-based tools, and data storage platform developed by RWFA, district officers have not begun data collection on FLR due to lack of financial support for transport, computers, and trainings. There are no specific laws and regulations related to restoration, and there is considerable difference between the rules on paper and practices on restoration planning and management between collaborating agencies and between central and district Government.

The Joint Action Development Forum (JADF)³¹ has therefore not provided an effective mechanism for district level FLR planning. JADF is a multi-stakeholder platform meant to facilitate and promote the full participation of citizens in the decentralized and participatory governance and improve service provision processes with representatives from the public sector, private sector and civil society. However, the JADFs have no financial or technical resources to bring stakeholders and institutions together in an inclusive, participatory process to agree on restoration opportunities, challenges and long-term objectives. Thus, there is no overall agreed landscape or district plan to guide collective action in a context of competing interests and weak connections between land managers and beneficiaries of good practices. In addition, coordination across sectors is weak. Master plans, strategies and policies are not released in a timely manner by all agencies. Indeed, although each district has a forest management plan and a land use plan, planning and implementation are not coordinated, which can lead to areas being overcommitted to multiple land uses. In particular, landowners are often not adequately consulted to help make participatory decisions in the landscape. A shared common vision and framework for restoration among stakeholders is therefore lacking.

The PPG assessment found that institutional mandates, roles and responsibilities are not clearly defined and coordination is generally limited both regarding ministries and agencies at the national level, especially in light of the recent re-organization of environment focused ministries, agencies and departments (MAD). Indeed, frequent institutional changes have compromised long-term planning and

³⁰ Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration; Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI.

³¹ The Joint Action Development Forums (JADF) was introduced in 2007 with support of the Government of the Netherlands and the Rwanda Governance Board (RGB) and every district has a JADF. These are multi-stakeholder platforms that were put in place to facilitate and promote the full participation of citizens in the decentralized and participatory governance and improve service provision processes with representatives from the public sector, private sector and civil society. JADF members are drawn from local Government, civil society organizations, private sector, and other local development partners. Together they form JADF as a non-hierarchical discussion platform in which every member has equal role to play, represents his constituency, provides open, complete and transparent information about his development activities and results, and discusses progress made in the District towards sustainable and inclusive local development to learn and eventually improve their performance. The District and Sector Authorities participate in JADF as members. Through JADF organs (General Assembly, Executive Committee, Thematic Commissions), they facilitate the establishment and proper functioning of the JADF partnerships at district and sector level. The day-to-day management and monitoring of JADF operations are carried out by JADF Secretaries hosted in Districts' Administrative premises.

systematic implementation of policies and programmes. Coordination is also limited between the national and local levels. For instance, District Forest Officers (DFO) report to district top management and through that channel to the Ministry of Local Government, but do not report to national institutions in charge of forestry, such as the Ministry of Environment (MoE) or the Rwanda Water and Forestry Authority (RWFA). This is confirmed by lack of regular reports from districts on forest management filed at MoE and RWFA level. Before this change, national forest authorities had the power to oppose a district level decision on forest harvesting if it did not respect rules and regulations by Ministry. Coordination with Non-Governmental partners is also limited. International development partners and NGOs play a key role, but JADF are not properly coordinating stakeholders. Links between Government stakeholders and the private sector, on the one hand, and the academia on the other hand are currently limited and the link with NIRDA (National Industrial and Research Development Agency) is very weak.

While the environment and biodiversity related laws and policies provide a strong foundation for sustainable forest conservation, there is still room for improving the role of policy in sustainable forest management (SFM), and to ensure that policies are adequately resourced, implemented and monitored. The following legal and policy gaps have been identified and need to be addressed:

- a. While the National Forestry Policy (NFP) promotes the concept of SFM, this is not clearly defined, making it difficult for policy makers and resource managers to have the same understanding. The
- b. At the moment, monitoring and evaluation of progress towards SFM is compromised by a lack of national indicators, baselines, targets and means and sources of verification.
- c. Many of the existing environmental fines and penalties (e.g. forest fines) are not being adequately enforced and are too low to serve as effective deterrent to illegal activities. This is leading to continued loss in revenues for the Government as well as continued loss or degradation to the natural capital that is meant to be protected.
- d. Cross-sectoral integration is poor at the policy level, with competing interests and limited awareness of trade-offs, for instance between the agriculture and forest sectors. The agriculture sector promotes the use of pesticides and inorganic fertilizers, but these cause soil and water pollution and affect human, animal and plant health.

Barrier 2: Inadequate individual skills and institutional resources for adoption of SLM/SFM practices, protection of biodiversity and removal of deforestation from energy systems at many levels

Although there are sustainable land and forestry management technologies that can reduce ecosystems degradation, adoption in the four Districts is hindered by low levels of skills of farmers, compounded by weak extension service that does not deliver an updated extension package to the land users. A joint institutional and systemic capacity assessment (using UNDP Capacity Scorecard) for the district level representatives of the Ministries relevant to SLM, SFM and biodiversity conservation (Ministry of Agriculture and Livestock Development, Ministry of Local Government, Ministry of Lands and Forestry) scored an average of 36.5 percent (Annex 9).

At the Sector level, there is only one extension officer in charge of agriculture and natural resources management who is mostly agriculture-oriented and covering two sectors. Other institutions are also involved in the management of forests in Rwanda, in general, and Mayaga, in particular, in collaboration with MoE. These are the MINALOC, which supervises districts; the Ministry of Agriculture (MINAGRI), through the Rwanda Agriculture Board (RAB); and the Ministry of Finance and Economic Planning (MINECOFIN). MINAGRI's mandate includes also agroforestry to some extent, and this overlaps with the responsibilities of MoE.

Due to shortage of staff, officers at both districts and sector levels are in charge of too many responsibilities, with no real competence over some of them. Human resources have also limited capacity to monitor, study, evaluate and assess policies and activities relevant to biodiversity and conservation with the goal of ensuring evidence-based decision making. They currently lack adequate data collection and analysis tools, as well as technical capacity on data collection, entry and analysis. Although there has been tremendous increase in budgetary allocation to the then Ministry of Land and Forests (current MoE), financial resources of key institutions, such as Rwanda Water and Forestry Authority (RWFA), are still insufficient at district level to implement their mandates effectively. For instance, logistic resources (communication and transportation-vehicles and fuel) are often insufficient to monitor forestry work at district and sector levels.

An integrated extension model was introduced in 2014 (Twigire Muhinzi) based on the Farmer Promoter and the Farmer Field School (FFS) approaches³². Despite this, there is inadequate systematic updated information on best climate smart agricultural practices; the links between research and extension service are weak and research findings remain largely un-disseminated. The capacity deficits have led to the third barrier – poor implementation of improved management options, described below.

Barrier 3: Inadequate implementation of SLM, SFM, biodiversity conservation measures and poor uptake of diversified energy options

A large number (40 to 45 million) of seedlings is produced each year in the country³³. For the Mayaga region, the preferred species are those with a commercial value such as eucalyptus, grevillea, calliandra, leucena and fruity trees such as avocado, mangoes, oranges, lemon and papaya. While eucalyptus is the dominant species, fruit trees are used for agroforestry. However, establishment of forests and plantations is limited by inadequate knowledge on propagation, nursery and tree husbandry, uncertain markets and low prices. Often seeds of well-adapted tree species are not available to farmers, NGOs or other organizations that promote tree planting. Households from the four districts reported that increasing the number of trees in their farms was hindered by the fact that there were very few nursery beds close to them. Moreover, seeds are of low quality, compromising the growth of trees. Besides, sometimes nurseries do not have the varieties that farmers need, and seedlings tend to be expensive. Furthermore, when provided to communities, seeds are delivered out of the growing season (before or after the planting season). In addition, the growth of planted trees is not appropriately monitored and supervised.

Productivity of plantation forest is currently low. More than 50% of forest plantations are at the end of their productive life³⁴. Due to short rotations, stumps are exhausted and in the last three decades, the annual wood increment dropped from 20m³ to 8m³ per hectare³⁵. In addition, there is low species diversity in plantation forests: tree cover is dominated by a small number of Eucalyptus species, which has undergone genetic erosion, mainly due to inbreeding. Seeds are provided by the Tree Seed Centre in the Southern Province, but generally the genetic quality of germplasm is poor³⁶. There are no dedicated seed orchards to provide a variety of quality seeds to forest growers. The quality of germplasm is also limited by low levels of knowledge on harvesting and post-harvest handling.

³² The model works with agents that are selected by fellow farmers, on the basis of having helped others and having some level of education (able to read and write). These agents are then trained and supported to transferring the best agriculture practices to other farmers.

³³ UNDP 2018 – Assessment of sustainable land management practices in the Mayaga region: A PPG Assessment report.

³⁴ Ministry of Natural Resources – Rwanda (2014). Forest Landscape Restoration; Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI

³⁵ Ministry of Natural Resources – Rwanda (2014). Forest Landscape Restoration; Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI

³⁶ Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration; Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI

The capacity barriers have resulted in inadequate protection for the natural forests and the biodiversity they harbour. Despite the number of natural forests and plantations, the MoE does not have a unit for protecting forestry resources, although some natural forests are protected as Forest Reserves (such as Kibirizi-Muyira found in Nyanza and Busoga in Kamonyi), which provide very low levels of protection. The protection of National Parks is under the responsibility of the Department of Conservation of the Rwanda Development Board (RDB), although RWFA has a Department of Forest and Nature Conservation. The lack of forestry surveillance and monitoring has resulted in fraudulent and unsustainable logging, uncontrolled clearing, as well as encroachment into the forests by cultivators and livestock herders.

Despite many decades of investments in high efficiency cook stoves in Rwanda and the Mayaga region, the PPG assessments showed that their adoption in the four districts is less than 30 percent; inaccessibility, lack of awareness of their usefulness, unaffordability and lack of technicians to repair broken ones were cited as the reasons for the low levels of adoption. The use of other sources of energy such as electricity, biogas, solar lamps and stoves, liquefied petroleum gas (LPG) was, collectively, below 5% amongst the sampled households in the four districts (Table 4). Lack of economically competitive, culturally acceptable alternatives, coupled with extremely low household incomes for the majority is the key barrier to adoption of cleaner energy alternatives. This is because biomass energy remains the most affordable option to most households, relative to the alternatives which are either less convenient (such as agricultural residues) or much more expensive (such as electricity and LPG). According to the PPG assessments, households reported that even if they manage to buy the LPG cookers because of the facilitation of credit system, they would struggle to purchase gas. Focused group discussions showed that biogas systems are highly subsidized by the Government. Indeed, for a biogas system of 8 m³, which costs 400,000 RWF37, the households pay less than 10 percent. Nevertheless, it is difficult to scale up this program due to the fact that almost all the people cannot afford to buy 2 or even 1 cow needed to produce the necessary raw materials for the fuel.

While the country has progressive charcoal regulations and licensing regime for tree harvesting and replacement, they are not well known or understood by majority of households in Mayaga region: affecting compliance. While sustainable charcoal production and charcoal supply chain provides important rural employment and income opportunities, there are no formalized supply chain management or functional charcoal producer cooperatives/ associations in the region; this is a missed opportunity for local economic development. Indeed a 2009 Biomass Energy Assessment found that biomass is big business in the national economy, raising \$120-150 million per year, constituting 5% of GDP with 50% of market value remaining in rural areas³⁸. However, there is very limited participation by the four Districts in this market. In addition, sustainable charcoal³⁹ can reduce the amount of wood being used to produce charcoal, especially when combined with a program of expanding adoption of high-efficient cook stoves. However, the existing charcoal value chain in Rwanda is weak. Currently, it is predominantly an informal private sector driven system. Although the charcoaling value chain has improved in recent years at the national level, there is inadequate capacity to formalize it or to increase the number of formal private sector enterprises (companies and cooperatives) within the value chain in the four districts. In

 $^{^{37}}$ As of August 2018, the official UN exchange rate is USD 1 = RWF 880.

³⁸ Rwanda Biomass Energy Strategy, GoR, 2009

³⁹ Sustainable charcoal—refers to charcoal that has been produced from sustainably managed woodlots, woodlands or forests combined with improved processing and utilization techniques, where the conversion along the charcoaling chain is as efficient as the current levels of technology allow (ESD, 2007). The sustainable charcoal concept aims at minimizing material and energy losses at all stages of the charcoaling chain. In this case, wood obtained from sustainably produced biomass resource is harvested using efficient ways ensuring minimum waste is generated. The wood is then converted into charcoal using improved and efficient kilns after which proper handling is ensured during packaging, storage and transportation to minimize waste. The generated charcoal is consumed using improved cook stoves such as the Kenya Ceramic Jiko (KCJ), and finally, the charcoal dust is used as fertilizer. Sustainable charcoal can earn carbon credits under the CDM (and voluntary markets). Measurement of emissions mitigated through sustainable charcoal can be done in accordance with the CDM approved baseline and monitoring methodology AM0041 - "Mitigation of Methane Emissions in the Wood Carbonization Activity for Charcoal Production" – UNFCCC CDM EB.

addition to cutting emissions, such a formal and better organized value chain would result in fairer payments for charcoal producers and increased tax revenues.

The barriers described above are exacerbated by low levels of private sector participation in the energy sector in the rural areas, hampering the widespread upscaling of demonstrated alternatives. Indeed, the Government and its development partners have piloted several initiatives that promote alternatives which improve livelihoods while simultaneously promoting ecosystem restoration and reducing emissions. These include introduction of green technologies (biogas, solar lights and cookers) in the Imidugudus⁴⁰ (villages) - under land consolidation; the National Domestic Biogas Programme (NDBP); and widespread promotion of plantation forestry. The uptake of these and similar, proven initiatives in the four Districts targeted by this project is limited, hindered by inadequate incentives for a vigorous private sector participation in the local level economic development. Uptake of agroforestry-based businesses for example is hindered by a lack of proven economic case for the forest landscape restoration interventions, made worse by low levels of awareness of the benefits of restoration by business. General poverty and lack of access to credits makes the situation worse. Many smallholder farmers are poor and have limited access to appropriate loans, grants and/or incentives. There is a need for innovative financing mechanisms to help build the capacity of cooperatives, NGOs and private sector companies to take up restoration friendly businesses, and to mainstream climate friendly technologies and energy efficient production and consumption processes, e.g. sustainable charcoal.

1.4 BASELINE PROGRAMS:

The proposed project builds on a large baseline investment (at national and regional level) of US\$ 95 million, of which US\$ 25,493,365 serves as co-finance. The baseline programs are described below.

Government investments in Vision 2020, 2050– US\$ 40 million⁴¹ for the Mayaga region (2018-2025): Rwanda's Visions 2020 and 2050 documents provide an outline of how the country plans to address its environmental, social, and economic challenges and become a middle-income country by 2020⁴². Vision 2020 is based on six pillars designed to overcome barriers to growth: good governance and a capable state; human resource development and a knowledge based-economy; a private sector-led economy; infrastructure development; productive and market-oriented agriculture; and regional and international economic integration. Vision 2050 also focuses on five broad priorities: High Quality and Standards of Life; Developing Modern Infrastructure and Livelihoods; Transformation for Prosperity; Values for Vision 2050; and, International cooperation and positioning. Improved natural resources management, mainstreaming climate risk and gender are considered important foundational issues for the achievement of the two Visions. The implementation instrument for the remainder of Vision 2020 (from 2017 to 2020) and the first four years of Vision 2050 (2021 – 2025) will be the National Strategy for Transformation (NST1)⁴³.

Priority Area number 7 of the NST1 recognizes sustainable management of the environment and natural resources as the pathway healthy lives and a Green Economy, focusing on Forestry, Land, Water, Environment and Climate Change. Under increased access to and use of sustainable and low carbon energy, the number of households depending on biomass as a source of energy for cooking is expected to reduce from 83.3% (2014) to 42% by 2024. This will be achieved by working with the private sector to

⁴⁰ UMUDUGUDU is defined as a mode of planned settlement made of between 100 and 200 houses by site in rural areas. Measurements of plot reserved for "UMUDUGUDU" range from 10 to 20 hectares with a possibility or capacity of extension and as far as possible a space provided for various non-agricultural activities so as to allow the population to earn their lives. The combination of all these elements constitutes the UMUDUGUDU (plural: Imidugudu).

⁴¹ The US 40 million was a rough estimate provided by stakeholders during the PIF formulation, based on national budget allocations to the four districts.

⁴² Republic of Rwanda Ministry of Lands, Environment, Forestry, Water and Mines; (2003). *National Environmental Policy 2003*: Kigali: Ministry of Lands, Environment, Forestry, Water and Mines.

⁴³ Republic of Rwanda, 2017: National Strategy for Transformation 1: THE 7YEAR GOVERNMENT PROGRAM 2017-2024

increase the uptake of improved cooking stoves and to promote the use of alternative fuels such as cooking gas and biogas in both urban and rural areas. Under increased sustainability and profitability of forestry management, the area covered by forest will be increased from 29.8% (2017) and sustained at 30%. This will be achieved via sustaining afforestation and improved forest management in line with National and District Forest Management Plans. The trees planted will be increasingly oriented towards commercially viable ones to support the development of the wood industry and to other important species such as fruits. In addition, the percentage of Public forest allocated to private operators will increase from 5% (2017) to 80% by 2024. The percentage of private forest converted into productive forests and managed by Forest Owners Associations will increase from 0% currently to 50% by 2024. Under increased efficiency of management of land and water resource Land administration and management will be strengthened to ensure optimal allocation and use of land, while integrated Water Resources Management (IWRM) will be optimised and scaled up using a catchment-based coordination and planning approach.

The National Energy Sector Strategic Plan (2008-2020) - US\$ 5 million: implementation of the EDPRS is supported by the National Energy strategic plan, which aims to: i) to reduce fuel wood consumption from 94% to 50% - via wide spread adoption of biogas in residential homes and public institutions (schools, hospitals, prisons etc.); ii, to ensure that 52% of households have electricity from off-grid sources (solar or mini-hydro) systems by 2017/2018. The country has also developed (and submitted to UNFCCC) a Nationally Appropriate Mitigation Action (NAMA), which reinforces the objective set by the Sustainable Energy for All (SE4ALL) calling for renewables to contribute 80% of the share of all cooking fuels in Rwanda by 2030; and, to reduce GHG emissions by approximately 5,770,000 tCO_{2e} in the same period (from reduced deforestation).

Land consolidation and Imidugudu roll out program – 2013-2020 – US\$ 30 million: The Ministry of Local Government will invest over US\$ 30 million during the project period, in the roll out of the land consolidation program. The land consolidation program aims to overcome the problem of land fragmentation, allowing farmers to consolidate their small plots for commercial farming, without losing their rights to the land. Under the program, the Government facilitates farmers in an area to identify a commercial crop that can be grown by a majority of farmers, and to recruit enough farmers to join the scheme so as to reach a threshold of production that would justify the installation of an agro-processing plant. Land consolidation is accompanied by the development of green villages, which are equipped with climate friendly technologies such as communal biogas plants, solar lighting, communal cattle sheds, etc. The farmers are organized into cooperatives to facilitate delivery of extension service on the selected commercial crops and to access marketing. It is expected that the private sector will pick up and advance green businesses to support creation of jobs and advance the growth of the green economy. The long-term plan is to introduce agro-processing centers in each area, for example the new cassava processing plant in a cassava specializing area in Nyanza.

The Bonn Challenge 2011 to 2020 – US\$ 5 million: In 2011, Rwanda made an ambitious pledge to the African Forest Landscape Restoration Initiative (AFR100)⁴⁴, a regional collaboration platform in support of the Bonn Challenge, to restore 2 million hectares of forest and agricultural land. This is part of the commitment made by the Global Partnership on Forest Landscape Restoration "The Bonn Challenge" to restore 150 million hectares of deforested and degraded land in the world by 2020. Rwanda intends to use this exercise to improve ecosystem quality and resilience, providing new opportunities for rural livelihoods, and securing adequate water and energy supplies, as part of the low carbon economic development. Rwanda's pledge represents a significant commitment to both its people and environment; and recognizes the value of the goods and services provided by landscapes and a platform for the country

⁴⁴ The aim of AFR100 is to bring 100 million hectares of land in Africa into restoration by 2030. AFR100 contributes to the Bonn Challenge, the African Resilient Landscapes Initiative (ARLI), the African Union Agenda 2063, and the Sustainable Development Goals, among other targets.

to achieve many of the goals outlined in EDPRS 2 and Vision 2020. With support from IUCN and WRI (World Resources Institute) the Department of Forestry and Nature Conservation conducted a countrywide assessment and identified restoration opportunities, including a cost and benefit analysis of restoration of degraded forested landscapes.

Environment and Climate Change Fund (FONERWA) 2019 – 2025: US\$ 10 million: FONERWA was established in 2012 as a national basket fund through which climate change finance is channelled, programmed, disbursed and monitored. The Fund is organized around four thematic windows: conservation and sustainable management of natural resources; renewable energy, R&D and technology transfer and implementation; environment and climate change mainstreaming; and environmental impact assessment monitoring and enforcement. The fund is being dispersed (initially) through a project application process, from line ministries, Government agencies, districts, civil society organizations (CSOs) and the private sector. It is expected that the fund will disburse loans and grants of up to US\$ 10 million to businesses and Government Agencies during the life of the project.

United Nations Development Assistance Plan (UNDAP) 2018-2023: US\$ 5million: The United Nations will invest upwards of US\$ 34,878,977 between 2018 and 2023, in the implementation of Outcome 3 of Results Area 1: Rwanda has in place improved systems for: Sustainable management of the environment, Natural Resources and Renewable energy resources, energy access and security, for environmental and climate change resilience, in line with Rio+20 recommendations for sustainable development. It is estimated that about US\$ 1 million of this investment will support energy and environment programs in the Mayaga region.

2 STRATEGY

The root causes (indirect factors) and direct threats impacting forest resources and biodiversity condition in the Mayaga Region are described in the previous section⁴⁵ and the intervention pathways are then described in the theory of change diagram in Figure 3. The key barriers are: a) Inadequate mechanism for inclusive participatory development of knowledge based shared FLR objectives; b) Inadequate individual and institutional capacity for adoption of SLM/SFM practices, protection of biodiversity and removal of deforestation from energy systems at many levels; c) Inadequate implementation of SLM, SFM, biodiversity conservation measures and poor uptake of diversified energy options. Three impact pathways have been identified which will enable the use of forest landscape restoration as a strategy for increasing tree cover from the current low 5% to at least 10% (in 20 years), increasing agricultural productivity by at least 25% in five years, securing current carbon stocks of 4,700,825⁴⁶ tCO2e, increasing biodiversity management in 555 ha (including increased protection levels in 354 ha), while simultaneously improving resilience of livelihoods through diversification of energy and income sources. Adopting an integrated landscape management approach will provide a stable and long-term system of landscape governance, which will help create resilient institutional arrangements and decision-making processes, enabling multiple actors to pursue their individual and shared interests. These systems will be institutionalized within Government structures to make them effective in the long-term.

Impact pathway 1: Knowledge based forest restoration plans with institutional and legislation frameworks and gender strategy, covering over 263,270 ha;

The first impact pathway will ensure that, by 2025, the four districts have a gender sensitive forest restoration plan covering 263,270 ha; developed in an inclusive, highly participatory process, coordinated

⁴⁵ See additional information in the baseline reports in Annexes 11 - 20

⁴⁶ Comprising 4,340,825 tons from forest conservation and reforestation and 360,000 tons from adoption of improved cookstoves: Annex 19 and Table 10 for calculations

by the empowered Joint Action Development Forum (JADF of each district). Informed by the best updated knowledge available, the plans will provide the basis for long-term collaboration among different groups of stakeholders to agree on forest restoration objectives and plans to enable the Mayaga region to achieve multiple objectives required from the landscape for the realization of positive synergies, and the mitigation of negative trade-offs. This will enhance the capacity of the degraded landscapes to deliver ecosystem services (store 4,340,825 tCO_{2e}, secure biodiversity in 555 ha of natural forests (including increased protection status of 354ha), support improved agricultural productivity (via land consolidation), provide adequate wood and non-timber products and secure rural livelihoods. To improve the institutional arrangement to enable the continued monitoring of the implementation of the FLR plans, the JADF will be provided with the resources required (financial, information, skills) to support the development and continued use of the FLR plans. The provisions of the FLR strategies will be mainstreamed into relevant by-laws to enhance integration across sectors and scales, increasing coordination, ensuring harmonization of planning, implementation and monitoring processes at the district and cell levels. Importantly, a wellcoordinated FLR will provide a stable and long-term system of landscape governance, which contribute to resilient institutional arrangements and decision-making processes.

Impact pathway 2: Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge management

Under this impact pathway, the project will increase, in a gender sensitive manner, skills of all stakeholders (farmers, land managers, charcoal producers and all other relevant groups), to enable them to participate in the planning and implementation of the forest landscape restoration and associated implementation technologies such as sustainable land management, wetland management, biodiversity friendly agriculture and energy practices, agroforestry, tree husbandry and other climate smart agricultural practices. It will also enhance the individual and institutional capacity of the extension service teams in the four districts by at least twenty points along the UNDP Capacity Scoring System (from the current 36.5 to at least 57)⁴⁷. These include staff and relevant departments of the Ministries of Agriculture and Livestock Development, Local Government, Lands and Forestry. It also includes the community planning platforms, namely the Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage).

The project will also increase the understanding of the importance of FLR in securing ecosystems services for local economic development and resilient livelihoods. It will ensure that the public, decision-makers and other stakeholders in the Mayaga region have a high level of awareness of the risks to the

⁴⁷ UNDP defines capacity in a rather similar way as "the ability of individuals, institutions and societies to perform functions, solve problems and set and achieve objectives in a sustainable manner" (UNDP, 2006a). UNDP capacity assessment measures the following types of capacity, at the individual, institutional and systemic levels: i) Capacities for engagement - Capacities of relevant individuals and organizations (resource users, owners, consumers, community and political leaders, private and public sector managers and experts) to engage proactively and constructively with one another to manage a national/global environmental issue; ii) Capacities to generate, access and use information and knowledge - Capacities of individuals and organizations to research, acquire, communicate, educate and make use of pertinent information to be able to diagnose and understand global environmental problems and potential solutions; iii) Capacities for policy and legislation development - Capacities of individuals and organizations to plan and develop effective environmental policy and legislation, related strategies and plans – based on informed decision-making processes for global environmental management; iv) Capacities for management and implementation - Capacities of individuals and organizations to enact environmental policies and/or regulatory decisions, and plan and execute relevant sustainable global environmental management actions and solutions; v) Capacities to monitor and evaluate: - Capacities in individuals and organizations to effectively monitor and evaluate project and/or programme achievements against expected results and to provide feedback for learning, adaptive management and suggesting adjustments to the course of action if necessary to conserve and preserve the global environment. Measurement is done using the many indicators provided in the UNDP-GEF Capacity scoring system found here -

http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/mainstreaming/monitoring-guidelines-of-capacity-development-in-gef-operations/Monitoring%20Capacity%20Development-design-01.pdf

economy and livelihoods associated with deforestation under current and possible evolution of these risks with the changing climate, and the benefits of reforestation in an integrated landscape approach. This will be delivered via an effective and comprehensive awareness strategy, which will increase participation of the public in the restoration of the landscape.



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Figure 3: Theory of Change Diagram

The project will also ensure that knowledge management, monitoring and evaluation (M&E), is effectively used to ensure that the stakeholders understand the nature and extent of impacts achieved via project interventions. This is particularly important because FLR attempts, through participatory, inclusive negotiation and planning, to minimize trade-offs and maximize synergies. FLR should therefore not follow the traditional unidirectional project cycle approach. Due to the dynamic nature of living landscapes, it follows that there should be no defined end point to an FLR approach, rather it should be an iterative process of negotiation, trial and adaptation, with adaptive management feedback mechanisms to provide stakeholders the capacity to best account for conservation and development challenges within the landscape. A participatory M&E and knowledge management strategy is critical to this process. Monitoring processes need to balance participatory engagement and scientific rigour, and encompass evaluation of social, environmental, production and governance variables. The project will therefore design a system to ensure learning and sharing of lessons from the interventions, through appropriate policy fora and communities of practice, including those that address gender-responsive approaches. In addition, it will ensure that project implementation is guided by a gender strategy, so that the project benefits, roles and responsibilities are equitably shared amongst all gender groups, including the youth.

Impact pathway 3: Implementation of FLR plans improves management of 555 ha of natural forests (including increased protection status of 354 ha), puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the New Forest Company through co-finance, increases productivity of agriculture and plantation forests and reduces negative impacts of energy systems on the forests

Under this impact pathway, the project will ensure that by 2025, the relevant stakeholders in the four districts have implemented field practices (in an inclusive and gender sensitive manner) that manage ecological, social, and economic interactions for the realization of positive synergies, and the mitigation of negative trade-offs throughout the landscape, and that they realize multiple benefits across all sectors and interests. The project will therefore improve biodiversity management in 555 ha of forests, including increased protection status of 354 ha, from Forest Reserve to IUCN category IV or higher category of protection if possible; it will implement an afforestation program along the buffer zones and hilltops to increase forest plantations by about 1,000 hectares, with higher productivity than the current plantations (by more than 25%⁴⁸). It will also promote adoption of SLM/SFM practices in over 25,000 ha, increasing productivity of agriculture by more than 35% (measured by increased yields of 3 key crops per cell).⁴⁹ Additionally, it will increase, by at least 25%, the uptake of household energy technologies that reduce the current negative impact of energy systems on forest resources.

2.1 ASSUMPTIONS

The Theory of Change diagram (Fig. 3) identifies 7 sets of assumptions underlying the transition of outputs into outcomes and outcomes into the objective and objective into long-term impacts. These assumptions are summarised in Table 5 below.

Table 5: Key Assumptions Underlying the Theory of Change

	Group of The assumptions
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⁴⁹ Lessons from similar projects have shown that uptake of SLM practices can often double productivity of land and labour. The projects include Sustainable Land Management for the Kilimanjaro region (PIMS 409), SFM for Miombo Woodlands (PIMS 3091) and SLM in Agroforestry Production Systems of Kenya (PIMS 3245).

⁴⁸ Via various methods including improved husbandry practices, improved genetic stock of seedlings and use of fast growing species.

Outputs to results	
A1 – Component 1 outputs to outcome 1	a. Key stakeholders will easily reach agreement on forest restoration objectives and plans, under the twin special conditions of very high population densities and high dependency on agriculture in Rwanda;
	b. Inter-sectoral, multi-stakeholder institutional framework for FLR will have appropriate staff and funding from the Government to ensure its effective functioning post the project, thus institutional failure will not threaten the sustainability of the project results. This is important because forest recovery takes longer than the duration of the six year project;
	c. That funding will be available to bona-fide, reputable NGOs, and communities. FLR is not the sole work of the Government, though they are key;
	d. Project resources are adequately supported by co-finance, and together they will be adequate to shift the barriers to collaboration and inter-sectoral coordination to allow mainstreaming of FLR into economic and other relevant sectors;
	e. The current levels of support from authorities and other stakeholders for FLR are increased.
A3 – Component 2 outputs to outcome 2	Capacity building programs can overcome the effects of high staff turn-over of the institutions of natural resources management (transfer of departments, merging and creation of new Ministries).
A5 – Component 3 outputs to	a. The gazettement of the 354 ha to IUCN Category IV protection status is not delayed by bureaucratic procedures;
outcome 3	 b. The rainfall patterns hold (no drought or floods) such that: a) seedlings survival is only subject to improved husbandry practices; b) change in productivity for crops is influenced only by adoption of improved SLM and SFM practices;
	c. Messages on improved energy technologies can overcome strong cultural preferences to inefficient cooking methods using poor technologies. Cooking with wood fuels, for example, is so deeply ingrained in many local cultures that they prefer to stick with it even when other options are available and affordable.
A2, A4 and A6 – outcomes to objective	No unusual climate events (droughts or floods) occur in the duration of the project (or not in the initial years when the measures are being implemented by the project, which would mitigate the negative impacts of unusual climate events), have taken hold);
,	No political unrest or sudden changes in inflation and value of the currency
A7	In addition to all the above assumptions, it is assumed that the government and other stakeholders will continue to provide the required financial and technical resources (which will be quantified in the project exit strategy formulated in the 4 th year of implementation) to continue with the gender inclusive and participatory implementation and monitoring of the FLR plans/strategies. This is particularly important because trees take a long time to become forests and the FLR should be a continuous iterative process.

2.2 INNOVATION, SUSTAINABILITY AND POTENTIAL FOR SCALING UP

The project is testing the innovative approach to increasing tree cover in a landscape where land holding per household is less than half a hectare (the population of Southern Province is 1.3 million against a surface area of 263,270 ha, giving a per capita land holding of 0.2 ha). The project introduces forest landscape restoration to protect important remnant forests and numerous forest patches in an area where pressure from economic development is immense, threatening an important habitat for the Albertine Rift biodiversity. The project has sustainability and replicability features built in its design. Sustainability features include the following:

- The choice of the FLR strategy is strategic because the country has committed itself to the Bonn a. initiative with national targets for both restoration of degraded forests (2 million ha) and national forest cover (30%). Indeed, the proposed project is upscaling the national initiative on FLR led by the former Ministry of Natural Resources, which undertook a National Forest Landscape Restoration Opportunity Assessment in 2014⁵⁰, culminating with the 2 million hectares target. FLR has great political support at the national level and financial support at the international level. Indeed, a Global Partnership on Forest and Landscape Restoration (GPFLR) was launched in 2003⁵¹ (spearheaded by IUCN, Secretariat services provided by WRI), providing a proactive global network that unites governments, organizations, academic/research institutes, communities and individuals under a common goal: to restore the world's lost and degraded forests and their surrounding landscapes. This partnership responds directly to the Bonn Challenge to restore 150 million hectares of deforested and degraded land by 2020 and 350 million hectares by 2030. The partnership aims to catalyze dynamic, voluntary action through sharing diverse experiences on FLR, create knowledge networks to accelerate FLR efforts, mobilize domestic and international funding to support FLR and capacity development. A Forest and Landscape Investment Forum (FLIF) was launched in Kigali in November 2017. The Forum aims to explore investment opportunities to finance the target set by African Governments under the Bonn Challenge (AFR100) of restoring 100 million hectares of degraded land and forests by 2030. It will boost investments needed to achieve all the ambitious restoration goals. Finally, Rwanda has submitted a highly ambitious proposal to the Green Climate Fund to mobilize funding to finance implementation of the National Forest Investment Program (FIP), which has three target areas: (1) Support for Sustainable Agriculture through Agroforestry; (2) Support for Sustainable Forest and Landscape Management; and (3) Wood Supply Chain, Improved Efficiency and Added Value. Together with FONERWA (Rwanda Environment Fund), the FIP will provide grants to implement "bankable projects" such as the FLR plans produced via the proposed project.
- b. At the landscape level, by going through the Joint Action Development Forum, and empowering it with technical and operational resources to coordinate the FLR planning for the four districts, the project ensures sustainability and enhances the chances of upscaling in the rest of the Southern Province, through improved extension service and cross sectoral coordination.
- c. By invigorating private sector to lead dissemination of energy efficient and sustainable charcoal production, the project is likely to overcome the challenge of upscaling such technologies faced by other government/donor led pilots. By improving the genetic germplasm of the forest plantation, the project is likely to benefit the rest of the country. As reported by the Department of Forest and Nature Conservation under then RNRA, studies have shown that Rwandan farmers are

⁵⁰ Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI. viii + 51pp.

⁵¹ http://www.forestlandscaperestoration.org/about-partnership

able to create new agroforestry technologies that meet their individual needs when they are able to choose from a number of native and non-native species. The support to the tree seed centre will produce high-quality genetic stocks of native and non-native agroforestry species that will be made available to farmers throughout the country. On well-adapted sites, landowners may only need to be informed about the benefits of a specific agroforestry technology and they take it on. Demonstrating adoption of sustainable charcoal is likely to be upscaled in other parts of the province, and the country, further reducing biomass consumption. Demonstrating forestry-based value chains is also likely to be taken up in the rest of the province, and the country, because the economic benefits accrue to individual entrepreneurs.

2.3 GLOBAL ENVIRONMENTAL BENEFITS

The project will deliver environmental benefits from improvements in vegetation cover and soil conservation including: a) improved native biodiversity within a global priority ecoregion; b) carbon sequestration; c) improved watershed function, reducing sedimentation and related costs to downstream water infrastructure and fisheries; and d) higher productivity and diversity of natural-resource-based livelihoods. Sustainable land management and watershed rehabilitation have intrinsic adaptation benefits, which will increase resilience of livelihoods amongst vulnerable communities. The benefits are described and quantified in Table 6, below.

B	aseline practices	Alternative to be put in place by the project	Selected environmental benefit
a) b)	Land use planning does not account for ecosystem values and biodiversity, leading to continued forest degradation, loss of high carbon stock forests and high biodiversity value forests (natural forests) and loss of ecosystem functions; Sectoral approach prevails in terms of land use decision- making; forest planning does not incorporate forest landscape restoration and does not involve stakeholders adequately in the decision-making, leading to high levels of deforestation and	 FLR approach adopted; four FLR plans developed covering 263,270 ha; used to mainstream SLM/SFM principles into district land use and development planning, compliance monitoring and enforcement: Areas with the highest potential for forest restoration are identified and capacities provided for actual restoration; hence land in the four districts is classified with the principle of retaining high value forest and biodiversity resources for ecosystem service maintenance; compliance is monitored and enforced. Biodiversity and ecosystem values are fully recognized and provisions are made in district land use plans for their maintenance and enhancement. Local and business communities and foreign investors are engaged in forest area and land use planning and use, and provide direct support for conservation and sustainable forest 	 FLR/SFM benefits: Pressure on forest landscapes reduced on over 263,270 ha with forest restoration plans: Avoidance of emissions of 4,700,825⁵² tCO_{2e} ⁵³ from: i) reduction of deforestation on 555 ha and legal protection of 354 ha of natural forests; ii) buffer and hilltop planting of 300 ha; iii) adoption of at least 60,000 improved cook stoves ⁵⁴; iv) increased carbon stocks from adoption of agroforestry systems in at least 1,000 ha. Improved functioning ecosystem services (such as carbon sequestration, watershed functions, forest products provisions, maintenance/ enhancement of tourism assets); Improved production sector practices (e.g. plantation and agriculture, mining.) integrating ecosystem services values and biodiversity concerns in its management Forest reserves, production forests and

Table 6: Glob	al environmental	benefits
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⁵² Comprising 4,340,825 tons from forest conservation and reforestation and 360,000 tons from adoption of improved cookstoves: Annex 19 and Table 10 for calculations

⁵³ Calculations in EXACT Tool, Annex 19.

⁵⁴ UNEP RISOE (2013) estimated emission reductions of 2-3 tCO_{2e} per year per cook stove: Emissions Reductions Profile for Rwanda - file:///C:/Users/ADMIN/Downloads/emissions-reduction-profile-rwanda.pdf

	forest degradation		and land management actions.		plantation areas integrate the concept of
	(loss of carbon/	-	Local communities are empowered		FLR, high biodiversity and carbons
	overharvesting		for community-based forest resource		stocks in their management plans and
	biodiversity);		management and practicing improved		practices.
c)	Individual and		land management and agricultural		
	institutional capacity		practices including natural forest	LL	benefits:
	deficits lead to		regeneration, establishment of	-	At least 263,270 ha of the Mayaga
	inadequate actual		community woodlots on degraded		region employing integrated landscape
	application of		lands, community forestry, and		management approach in the land use
	SLM/SFM and other		agroforestry.		decision-making and forest and
	soil conservation and	-	Protected area system is expanded to		landscape management, under enhanced
	climate smart		incorporate all the key high		cross-sector enabling environment for
	agriculture measures	1	biodiversity and carbon stock forests		forest landscape restoration, and with a
	in 25,000 ha of small		in the four districts.		range of support tools and mechanisms
	scale agriculture,	-	25,000 ha put under SLM/SFM,		for cross sector integration.
	leading to soil		increased uptake of agroforestry and	-	Land degradation and soil erosion
	erosion and loss of		other soil conservation measures, to		reduced on at least 25,000 ha put under
	carbon; use of wood		increase land productivity while		SLM with agroforestry systems adopted
	fuel with inefficient		increasing tree cover on farms;		to increase agricultural productivity,
	three stones cooking	-	300 ha of buffer zones and hill tops		soil nutrient stocks and retention,
	technology by 98%		planted with both indigenous and fast-		improving soil structure, and reducing
	of the population of		growing species; fast growing species		detrimental downstream effects on
	over 1.3 million in		reduce pressure on the high		water flow and quality of the Akanyaru
	four districts,		biodiversity forest while contributing		watershed ⁵⁵ .
	promotes		to carbon sequestration; indigenous	-	300 ha of forests under participatory
	deforestation, forest		species increase diversity of plant		forest management
	degradation and loss		species on the landscape;	-	1,000 ha of plantations established
	of carbon and	-	Management of forest biodiversity		under the New Forest Company through
	biodiversity; poor		improved in 555 ha of high		co-finance
	protection of high		biodiversity and carbon stocks; 354		
	carbon and		ha of it put under IUCN category IV	BL	benefits:
	biodiversity natural		to protect the landscape and	-	Management of biodiversity improved
	forests (555 ha) lead		ecosystems values;		in 555 ha, out of which 354 ha go under
	to deforestation,	-	Energy profiles (stacks) include high		IUCN Category IV protection status;
	forest degradation,		efficient stoves and/or other non-	-	Connectivity of the Kibirizi-Muyira
	biodiversity and		wood sources of energy;		forests restored and secured;
	carbon losses.	-	60,000 improved cookstoves	-	300 ha of buffer zones managed as
			disseminated through credit systems		participatory forest management;
		L	with cooperatives		

National socio-economic benefits

Stronger capacities and better coordination across sectors will enhance the restoration of the degraded forest landscape across over 263,270 ha in four districts. Forest protection, improved productivity of an expanded plantation forests, improved agriculture and strengthened SFM and watershed management achieved through the combined impacts of all project components will deliver economic benefits in the following areas:

⁵⁵ The IUCN / WRI study quantified the soil erosion reduction potential of various interventions as follows: Natural forest regeneration on deforested and degraded forests: 36 t/ha; protective forests on ridge tops and steep slopes: 9 - 31 t/ha; agroforestry: 5.5 t/ha; and improved woodlot management: 0.5 t/ha

- a) Increased agricultural productivity through sustainable land management activities, agroforestry, and through associated reductions in land degradation;
- b) Reduction in soil erosion through better land management and reforestation, with consequent reduced siltation of the Akanyaru River watershed and associated reductions in water treatment and hydroelectricity production costs, and reduced vulnerability to flooding;
- c) Diversified, resilient and improved livelihoods through off-farm income generating activities, with attendant reductions in climate vulnerability of household incomes;
- d) Economic opportunities resulting from the upgrading of the Kibirizi-Muyira Forest Reserves to IUCN Category IV Protection status;
- e) Economic conservation values stemming from the conservation of valuable biodiversity resources and the soil and biomass sequestration of carbon, both of which contribute to the preservation of global public goods;
- f) Economic value from increasing the knowledge base on forest-friendly land rehabilitation approaches that can be integrated into the GoR's national land management strategy;
- g) Reduction in the cost of health systems due to reduction of black carbon (soot) from household energy systems of 30,000 households that will get improved cookstoves;

Although the foregoing services are not yet quantified, they underpin a number of Rwanda's most important economic sectors – hydro-electric power, agriculture and forestry development. However, the World Bank-GEF project on FLR of the Gishwati Mukura FLR⁵⁶ reported an economic rate of return (ERR) of 35 percent. The proposed Mayaga landscape restoration project is very similar to the Gishwati – Mukura FLR, and it can be assumed that this project will have an ERR of between 10 and 20 percent.

3 RESULTS AND PARTNERSHIPS

3.1 EXPECTED RESULTS:

The Project objective is to secure biodiversity and carbon benefits while simultaneously strengthening the resilience of livelihoods, through forest landscape restoration and upscaling clean technologies in four Districts of the Mayaga region. The project will advance restoration of the degraded Mayaga forest landscape, enhancing both productive and environmental values. It will work concurrently in the major elements of the landscape – rehabilitating forests and biodiversity within the Kibirizi-Muyira and Busoga Forest Reserves, enhancing sustainable land management in the agricultural lands in the landscape, increasing productivity of an expanded plantation forest, and reducing the negative impacts of household energy systems on the forests by introducing improved cook stoves for households and institutions as well as sustainable charcoal production. These interventions will be synergistic, reducing deforestation and forest degradation, enhancing carbon sequestration, securing watershed services and increasing resilience of livelihoods.

The project will achieve its objective through three interrelated outcomes:

- a. Forest restoration plans with institutional and legislation frameworks guiding afforestation, natural resources management and agriculture, covering an area of 263,270 ha in 4 districts;
- b. Individual and institutional capacities enhanced for planning and implementing gender sensitive forest landscape restoration strategies, supported by knowledge management;

⁵⁶ World Bank 2014: World Bank GEF Project: Landscape Approach to Forest Restoration and Conservation (LAFREC) Project P131464

c. Implementation of FLR plans improves biodiversity management in 555 ha of natural forests, puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the New Forest Company through co-finance, increases productivity of 25,000 ha of agriculture and plantation forests and reduces negative impacts of energy systems on the forests;

Outcome 1: Knowledge based forest restoration plans, covering over 263,270 ha, with institutional and legislation frameworks

Total Cost: USD\$ 4,500,000; GEF Grant: \$ 1,500,000; Co-financing: \$ 3,000,000: Lead implementing partner – REMA in partnership with MoE/RWFA (all outputs).

Without GEF intervention (baseline):

In the absence of the GEF project, the baseline interventions will be implemented without a strategic adoption of the FLR approach reducing the efficiency of the government and local communities' investments in forest and natural resources management. The four districts have several institutions for coordination on development matters. The Joint Action Development Forum (JADF) was introduced in 2007 as a multi-stakeholder platform to facilitate participation of citizens in the decentralized and participatory governance, as well as improve service provision processes. JADF members are drawn from local government, civil society organizations, private sector, and other local development partners. The District and Sector Authorities participate in JADF as members.

Without the GEF investment, the work of the JADF will not be effective. This is because the institutional mandates, roles and responsibilities will continue to be inadequately defined and coordination will remain generally limited, in the ministries and agencies at the national level, especially in light of the recent reorganization of environment focused ministries and agencies. Coordination between the national and local levels will also remain poor as will links between government stakeholders and the private sector, on the one hand, and the academia as civil society on the other. Sectoral development programs will continue to be a threat to the forest resources due to inadequate mainstreaming of forest values and FLR in sector development plans.

With GEF intervention (project alternative):

This outcome is designed to address planning at landscape level through coordinated multi-sector processes to integrate the ways in which different government sectors apply their mandates with respect to forests and natural resources. Key to this integrated, multi-sector approach is the use of up to date knowledge to identify high conservation value and carbon sites, resources, habitats and landscapes with respect to safeguarding species diversity, carbon stocks, ecosystem services, community interests and cultural values. The project will introduce the use of the FLR concept and the high conservation value methodology⁵⁷, supported by a forest ecosystems valuation to identify and manage outstanding and/or critical environmental and social values within the landscape. The project will also increase the capacity of the coordination systems and facilitate legislation at local level to enhance compliance with national policies on FLR. The outputs and deliverables are described below.

⁵⁷ Brown, E. and M.J.M. Senior (20140). Common Guidance for the Management and Monitoring of High Conservation Values E HCV Resource Network.

Output 1.1: Legislation and coordination mechanism in place for effective FLR

The project will support the Ministry of Lands and Forestry to clearly define the concept of SFM and FLR⁵⁸ in the National Forestry Policy, through an addendum or a technical note, and disseminate it, so that policy makers and resource managers have the same understanding. SFM and FLR will be defined in terms of their contribution to conservation of biodiversity, sustainable health, vitality and productive capacity of ecosystems, protection of soil and water resources, and sustainable yields in terms of meeting Rwanda's current and projected future needs for forest products. The project will facilitate the JADF to adopt the SFM definition for the purposes of planning and implementation of FLR in the four districts. It will then facilitate the development and adoption of FLR coordination system, in line with the JADF, to bring the relevant ministries and their agencies on board, to strengthen inter-sectoral collaboration on the planning and implementation of the FLR plans. The project will establish a thematic group on FLR under the JADF with the following stakeholders forming the basis of the collaboration: a) the Ministry of Environment represented by three of its agencies: the Rwanda Environment Management Authority (REMA); the National Fund for Environment in Rwanda (FONERWA): and the Rwanda Mines, Petroleum & Gas Board (RMB); b) The Ministry of Lands and Forestry, represented by two of its agencies: Rwanda Land Management and Use Authority (RLMUA), Rwanda Water and Forestry Authority (RWFA); c) the Ministry of Agriculture, including the Rwanda Agriculture Board (RAB); d) the National Industrial Research and Development Agency (NIRDA); e) Ministry of Local Government; e) Districts Decentralized Structures - the District Administrative Units, which supervise several technical and administrative activities; f) civil society, international organisations (IUCN/WRI), academia and community based organizations.

This list will be discussed during the inception period and expanded as necessary.

The project will provide technical assistance on FLR planning (in conjunction with Outcome 2) and provide the JADF Secretariat with operational capacity to improve coordination of sector plans in pursuit of FLR. This group will review legislation to identify ways to strengthen implementation and enforcement of national policies related to FLR at the local level. They will facilitate a participatory process, including gender considerations, to formulate recommendations and lobby for their adoption. In particular, they will strengthen the enforcement of environmental fines and penalties and adjust their amount to ensure that they are effective to deter illegal activities. They will also strengthen the integration of sectoral policies, better assessing and managing competing objectives and trade-offs.

Sample Activities

- a. Review definitions of the concept of SFM currently under use at the international level and harmonise definition under the National Forestry Policy, write and disseminate addendum or a technical note to all relevant stakeholders;
- b. Building on the work done by the Landscape Approach to Forest Restoration and Conservation (LAFREC), a GEF 5 FLR Project being co-implemented by the World Bank and REMA, continue the streamlining the definition of FLR and support the establishment of national level policy environment to promote its widespread uptake;
- c. Facilitate the JADF to adopt both the SFM and FLR definition for the purposes of the planning and implementation of FLR in the four districts.
- d. Review the current levels of operations and effectiveness of the JADFs in coordinating cross sector collaboration on forest management in the four districts. Identify strengths, challenges and best practices;
- e. Design and implement program to increase effectiveness of JADF to coordinate relevant

⁵⁸ The Landscape Approach to Forest Restoration and Conservation (LAFREC), a GEF 5 FLR Project being co-implemented by the World Bank and REMA is currently assisting stakeholders to define FLR and to set national level policy environment to promote its widespread uptake.

sectors to plan and implement FLR; this will include establishment of an FLR Thematic Group under JADF.

- f. Review local level enforcement of national policies related to forest and biodiversity conservation;
- g. Formulate and implement program to support more effective implementation of national policies at the local level; this will include providing policy statements in local language, formulation of by-laws to change the requirement of obtaining permits to cut trees from two to one hectare, etc.

Output 1.2: Four FLR plans ready for implementation, covering 263,270 ha

Under this output, the project will facilitate the four districts to produce four FLR plans with action plans for implementation. Formulation of the FLR plans will follow the methodology introduced by the World Resources Institute (WRI) and IUCN and already tested in the country by the former Ministry of Natural Resources⁵⁹, as recently modified and applied for the Gatsibo FLR baseline conditions assessment⁶⁰. The methodology will involve three simple steps: a) Geospatial analysis, to quantify the areas of degraded land in each district that presents an opportunity for forest and landscape restoration, which will be done using the "Collect Earth Mapathon, ground-truthing, and results validation" method described in Gatsibo study⁶¹. This will highlight the areas with best potential for restoration (sample in Box 1); b) economic analysis to model the costs and benefits of degraded and restored land, using the methodology adopted by the WRI/IUCN⁶² national assessment, and building on the national level results of that assessment (steps in Box 2); c) Designing restoration action plan, based on an in-depth assessment of the conditions required to implement the FLR in the selected sectors; d) An additional step will be added; where the gazettement of the Kibirizi-Muyira Natural Forests, as well as demarcation of boundaries to many remnant forest patches on hill-tops may lead to physical displacement of people who may have encroached the natural forests (especially those who may have cultivated fields and charcoal burning activities in restricted use areas), an in-depth Environmental and Social Impact Assessment (ESIA) will be undertaken in the first year of implementation, based on which an Environmental and Social Management Plan (ESMP) will be prepared, including a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's social and environmental safeguards policy and the GoR Imidugudu (village) settlement policy, a disaster risk reduction intervention which resettles people in disaster prone areas to government planned villages, provided with modern amenities (water, electricity, one cow per household, biogas, schools, community halls, etc.).

These assessments will identify capacity gaps which will be tackled by component 2.

⁵⁹ Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI. viii + 51pp.

⁶⁰ World Resources Institute, Ornanong Maneerattana, Fred Stolle, Tesfay Woldemariam; 2017: Baseline Conditions of Forests and Landscapes in Gatsibo District. Methodologies for Understanding Restoration Progress through Biophysical, Socioeconomic and Governance Indicators: Gatsibo District, September 2017.

⁶¹ World Resources Institute, Ornanong Mancerattana, Fred Stolle, Tesfay Woldemariam; 2017: Baseline Conditions of Forests and Landscapes in Gatsibo District. Methodologies for Understanding Restoration Progress through Biophysical, Socioeconomic and Governance Indicators: Gatsibo District, September 2017.

⁶² Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRL viii + 51pp.

Sample Activities;

- a. Constitute an FLR planning Technical Group. The Technical Group will be led by RWFA with members from WRI, IUCN, ICRAF, JADF FLR Thematic group, academia, local CSO;
- b. Establish linkages between this project and the World Bank-supported Landscape Approach to Forest Restoration and Conservation (LAFREC) project and other projects in the country that might be formulating FLR plans;
- c. Acquire geodata and map baseline forest conditions, identifying cells within each district with potential and suitability for the various types of afforestation and forest restoration;
- d. Assess conditions necessary for the implementation of the identified afforestation/restoration types and further determine/refine selection of areas for afforestation;
- e. Undertake economic analysis to model the costs and benefits of degraded and restored land, building on the national assessment undertaken by WRI/IUCN/GoR study;
- f. Design the FLR plans ensuring full participation and gender considerations in all the steps above.
- g. Upgrade existing FMIS (Forest Monitoring and Information System) to include FLR at both national and local level
- h. For selected areas where project activities are likely to lead to relocation of people, undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, and design an Environmental and Social Management Plan (ESMP) to guide implementation. This ESMP will include a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's social and environmental safeguards policy and the GoR Imidugudu (village) settlement policy.

Box 1: Potential FLR Transitions identified for Rwanda by the IUCN/WRI National assessment

- 1. Traditional agriculture to Agroforestry on steep sloping land and flat or gently sloping land;
- 2. Poorly managed eucalyptus woodlots and plantations to improved silviculture and rehabilitation of existing, sub-optimally managed woodlots, spacing only;
- 3. Poorly managed eucalyptus woodlots and plantations to improved silviculture and rehabilitation of existing, sub-optimally managed woodlots with spacing and erosion and fire-prevention best practices;
- 4. Deforested land Protection and restoration of existing areas of natural forests;
- 5. Deforested land Establishment or improvement of protective forests on important and sensitive sites

Box 2: Steps of a Cost-Benefit Framework for Analyzing Forest Landscape Restoration Decisions63

- 1. Specify the set of restoration transitions: Define which degraded land uses will be restored and the activities that will be used to restore them.
- 2. Define the stakeholders who will be impacted by restoration: Define the groups of people who will be impacted by the restoration transitions.
- 3. Catalogue the impacts and define how they will be measured: Which impacts matter most to the stakeholders who will be impacted by restoration and what units of measurement are most useful

⁶³ Verdone, M. (2015). A Cost-Benefit Framework for Analyzing Forest Landscape Restoration Decisions. Gland, Switzerland: IUCN.

for measuring them?

- 4. Predict the impacts quantitatively over the time horizon of the project: Use ecosystem service models, household surveys, stakeholder engagement, and other estimation methods to quantify the expected impacts of restoration activities.
- 5. Monetize all of the impacts: Use appropriate direct and indirect methods to value the estimated impacts.
- 6. Discount benefits and costs to obtain present values: Select appropriate discount rates to make streams of future benefits and costs comparable at the present moment.
- 7. Calculate the Net Present Value of each alternative: Subtract the discounted stream of implementation, transaction, and opportunity costs from the discounted stream of benefits.
- 8. Perform sensitivity analysis: The results of the CBA depend on assumptions and the sensitivity of the results to changes in the underlying assumptions should be evaluated.
- 9. Make policy recommendations: From a Pareto-efficiency perspective the restoration activities with the largest NPV should be recommended.

Outcome 2: Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge management

Total Cost: USD\$ 4,000,000; UNDP Grant: \$1,000,000; Government Co-financing: \$3,000,000: Lead implementing partner – REMA (all Outputs).

Without the GEF investment: Without the project, the joint institutional and systemic capacity⁶⁴ for the district level representatives of the Ministries relevant to SLM, SFM and biodiversity conservation of Local Government, of Agriculture and Livestock Development, Ministry (Ministry Ministry of Lands and Forestry) will continue to be at the average of 36.5 percent. Human resources will continue to perform their duties with limited data collection and analysis tools and weak technical skills for data collection, entry and analysis, gender mainstreaming and knowledge management, weakening planning and implementation of knowledge based, gender sensitive FLR strategies. In addition, they will continue to work with inadequate skills to monitor, study, evaluate and assess policies and activities relevant to FLR, biodiversity conservation and household energy programs, weakening the abilities of evidence-based decision making. Indeed, evaluating progress within a landscape is fundamental to determining where gains or losses are being made. Without understandable, cost-effective and reliable tools for measuring landscape outcomes, applying appropriate adaptive management decisions to maximize gains and mitigate losses will become impossible. Thus, implementation of the integrated extension model (Twigire Muhinzi) based on the Farmer Promoter and the Farmer Field School approaches will continue to inadequately integrate updated information on best SLM, SFM, FLR and household energy options. The land managers will have inadequate awareness of the importance and potential of FLR for economic development and securing livelihoods, and will lose the opportunity of adopting this innovative tool for managing their landscapes for the benefit of all stakeholders.

With the GEF investment: the project will address these shortcomings as described by the outputs, below.

⁶⁴ Using definitions and UNDP Capacity Scores described here -

http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/mainstreaming/monitoring-guidelines-of-capacity-development-in-gef-operations/Monitoring%20Capacity%20Development-design-01.pdf

Output 2.1: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 20 percentage points for all stakeholder groups:

Under this output, the project will design and implement skills development programs for technical staff of the relevant ministries, and for land users. Relevant technical staff working on restoration (from central government agencies, district Government, and NGOs) will be provided with skills on data collection, data quality control, data analysis and data interpretation as well as how to use cost-and-time saving technologies to support information generation. Community groups (land users/managers) will be provided with skills on improved tree husbandry and other SFM/SLM techniques (such as climate smart agricultural practices). Training on tree husbandry will be based on two practical forestry manuals produced in $2015^{65} - a$) Tree harvesting techniques, manual for Rwanda; b) Tree plantation establishment and management Manual. These manuals will be assessed for relevance and appropriateness and modified, if modification is deemed necessary. Community groups and cook stove technicians will also be trained on the use and maintenance of improved cook stoves while charcoal producers will be trained on the concept of sustainable charcoal production (including harvesting wood for carbonization, improving efficiency during carbonization, packaging and marketing). NTFP harvesters will be trained on improved harvesting, processing, packaging and marketing.

Sample Activities

- a. Identify key stakeholders relevant to the planning and implementation of the FLR plans in the four districts and those supporting them at regional and national levels. This should include all categories of stakeholders (community groups, community-based organizations, civil society, technical staff of technical support institutions);
- b. Refine the PPG Capacity Score Card, agreeing on the specific scores to be monitored and a schedule of repeating the assessment⁶⁶;
- c. Undertake skills needs assessment and identify gaps in skills;
- d. Assess training materials available in the country and beyond, and modify to suit the project requirements and the skills-gaps;
- e. Implement training program, ensuring gender mainstreaming to reach all gender groups.

Output 2.2: Institutional capacity for the extension service and community knowledge sharing forums increased by 25 percentage points on the UNDP Capacity Assessment for all stakeholder groups

The project will provide the extension service and community knowledge sharing forums with resources for operations. The project will target the three community platforms for disseminating knowledge; the Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage)⁶⁷.

⁶⁵ MINIRENA/RNRA, 2015 Tree Harvesting Techniques. Manual for Rwanda.

⁶⁶ This is important because although the 'Capacity Assessment Scorecard' is one way to rate a qualitative aspect in quantitative terms, it has its own set of challenges. In order to minimize the bias of the individuals marking the scores for different attributes of the 'Score Card,' a more robust scorecard verification should be undertaken at the start of the project. For this purpose, it is necessary that the set of stakeholders along with the attributes (including the weights for each of the attributes) is clearly understood by those responsible for the capacity development and monitoring its progress during the project implementation. Also, it is necessary that 'Score Card' assessment is included as an activity in the project document or in the monitoring plan, so that it does not get missed out.

⁶⁷ Monthly Community Work (Umuganda) are compulsory community work group that requires participation of all individuals in public works once a month. Hosted under MINALOC, it comprises drainage construction, cleaning and planting of trees, among other activities. This is

Sample Activities

- a. Identify institutions relevant to the planning and implementation of the FLR plans in the four districts and those supporting them at regional and national levels. This should include all categories of stakeholders (community groups, community-based organizations, civil society, technical staff of technical support institutions);
- b. Undertake institutional capacity assessment and identify gaps;
- c. Design and implement the program to address the capacity gaps.

Output 2.3: M&E plans, KM and gender mainstreaming strategy in place

The project will design a participatory monitoring and evaluation plan, a knowledge management plan, a gender mainstreaming strategy and an awareness raising strategy for FLR. The knowledge management plan will detail what knowledge will be created by the project and how that knowledge will be managed and disseminated. The main aim will be to ensure that lessons and best practices from project activities are captured and disseminated widely. The project will then facilitate the implementation of these plans and strategies to ensure that: a) project management involves all relevant stakeholders and utilizes an adaptive management approach; b) gender is mainstreamed into all aspects of project management, ensuring that project responsibilities and benefits are equitably distributed to all gender groups. This gender strategy will build on the principles established by the IUCN FLR Gender mainstreaming work; c) implementation of the FLR is monitored and data/information is provided to support adaptive management, and that a system of monitoring the initiatives is in place and capacities availed for its continuation post project. This is important because monitoring landscapes is an inherently challenging task. The size and complexity demand significant intellectual willingness, and financial, institutional and human resource commitments. Maintaining the motivation of local communities towards participatory monitoring processes, especially post project is particularly challenging. Ideally, FLR initiatives should be assessed along a minimum of four dimensions; environmental protection and restoration; sustainable production; livelihoods security; and institutional capacity/governance. The M&E system will therefore ensure such a system is designed and utilized, and that lessons from the participatory FLR implementation are proactively tracked, documented and shared widely⁶⁸; d) that awareness of the importance and potential of FLR in improving local economic development and increasing resilience of livelihoods is raised amongst all stakeholders; and, e) that an exit strategy is prepared by the end of the fourth year of project implementation.

Sample activities

- a. Design, in a participatory and gender inclusive process, an M&E plan;
- b. Design, in a participatory and gender inclusive process, a Knowledge management plan;
- c. Design, in a participatory and gender inclusive process, a gender mainstreaming strategy plan (building on the work of IUCN on gender mainstreaming in FLR);
- d. Implement the plans;
- e. Design an exit plan, identifying all further support required to sustain the FLR plans once the GEF funding is used up. The strategy should be ready by year four to allow fund-raising for its implementation;

followed by a meeting where information is exchanged and initiatives and practices discussed. This includes sustainability practices. The parents evening forum takes place at the village level where women and men meet to discuss existing issues and share best practices. It started as a family centred platform but it has been scaled up to cater for other existing social, economic and political concerns

⁶⁸ Shared through all relevant dissemination avenues, including newspaper and written media, sports and cultural events
f. Hold an international conference in the first quarter of the fifth year to promote the work of the project, share lessons and interest further investments into the FLR plans (from donors and the private sector).

Outcome 3: Implementation of FLR plans improves management of forest biodiversity in 555 ha of natural forests (increasing protection status of 354 ha of the 555ha), puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the New Forest Company through co-finance, increases productivity of agriculture and plantation forests on 25,000⁶⁹ ha and reduces wood consumption by at least 25%

Total Cost: USD\$ 21,910,904: GEF Grant: \$4,417,538; Co-financing: \$17,493,366; Lead implementing partners – see under individual Outputs.

Without the GEF investment: Natural forests will continue to decline; the carbon and biodiversity in the 555ha of natural forest will continue to be threatened by poor management, encroachment and low levels of protection; productivity of the plantation forests and land under agriculture will continue to decline, exacerbating pressure on the natural forests to provide wood products and encroachment for food production; over 90 percent of the rural population will continue to use wood fuel over the traditional three stones to provide household energy for cooking, contributing to poor health, deforestation and forest degradation. Collectively the measures above will lead to biodiversity loss, loss of watershed services and probably increase emissions by 4,700,825 tCO_{2e} over the next six years.

With the GEF investment: The project will improve the management of forest biodiversity in 555 ha of natural forests, increase the level of protection of 354 ha (to IUCN Category IV); it will increase productivity of 25,000 ha of agriculture by at least 25 percent in six years, put conditions in place to increase the average forest cover for the four districts from the current low 5% to at least 10% (in 20 years), reduce household wood consumption by at least 25 percent in five years⁷⁰; and secure current carbon stocks of 4,700,825 tCO_{2e} in six years. The GEF investment will reduce deforestation and increase watershed services. Where plantations are introduced, the project will ensure that: i) they are sited away from areas of critical habitats and will not lead to the conversion of natural habitats; ii) they will not be sited in areas recently degraded (hence can be afforested); ii) they are environmentally appropriate⁷¹; socially beneficial⁷², economically viable⁷³ and utilize native species wherever feasible, giving preference to small-scale community-level forest management approaches; iv) that the UNDP SESP guidelines on plantations will be followed ensuring that there will be no introduction of known invasive species, no introduction of any alien species without risk assessment, and that possibility of accidental introduction of invasive alien species will be considered and managed.

⁶⁹ SLM implemented on 25,000 ha, which includes 1,000 ha of agroforestry; improved management of existing and newly established plantations on 1,000 ha and 500 ha of community-based forest management.

⁷⁰ Experience from similar projects has proven that adoption of improved cookstoves can reduce household wood use consumption by half; e.g. the Securing Watershed Services via SLM for the Zigi and Pangani River Basins of Tanzania (PIMS 5077) and SLM for the Kilimanjaro Regions (PIMS 409).

⁷¹ Ensure site and natural species matching, use of integrated pest management, prevent spread of invasive species, do not degrade soil, promote protection of natural forests, set aside high conservation value areas, provide wildlife corridors.

⁷² Involve communities in planning and management, respect social and economic well-being of forest workers and local communities, respect indigenous rights, safe working conditions.

⁷³ Sufficient capital for establishment costs and technical capacity for planting and stand management

Output 3.1: Management enhanced on 555 ha of high conservation value forest, including increased protection status of 354 ha of the 555 ha (GEF Grant USD 700,000; Co-fin 3,000,000): Lead Implementing Agency – REMA.

Under this output the project will prepare nomination files to upgrade one Forest Reserve to IUCN Category IV protection status. The project will lobby for the approval of the nomination files and hence gazettement of the Kibirizi-Muyira Natural Forest, which is made up of two separate but neighbouring relict savanna forests, located in Nyanza District (354 ha). The importance of the Kibirizi-Muyira Natural Forest is described in section 1.2. Kibirizi and Muyira forests used to be connected but currently are separated by a valley dam, roads, agricultural land and human settlements. The project will explore the possibility of re-establishing the connectivity under the current contexts and pursue it. This would be done in line with the Environmental and Social Management Plan (ESMP) developed under Output 1.2, which will ensure that the project has no undue negative impacts on livelihoods of any stakeholder groups. The ESMP will include a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's social and environmental safeguards policy and the GoR Imidugudu (village) settlement policy.

Category IV is considered appropriate for the following reasons: a) The forests exist in crowded landscapes⁷⁴ and with heavy pressure from the surrounding communities to provide ecosystems services and goods, hence potential of illegal use is high; b) Kibirizi and Muyira are two fragmented natural remnant forests in the savannah habitat, while the Busaga is a remnant Montane Rainforest, both the blocks within the Albertine Rift biodiversity hotpot. The PAs will therefore be protecting fragments of habitats as components of landscape scale conservation strategies that contain threatened and endemic species. Osyris lanceolata (African Sandalwood in the Kibirizi-Muyira) which is highly threatened by illegal harvest. The tree is harvested from the forest, sold locally and traded internationally for its essential oil. Roots and wood are scented and used to make cosmetics and perfume⁷⁵. The tree is very slow growing, and in the early stage of growth, it requires shade from nursing trees. Busaga forest has been declared as a threatened remnant terrestrial ecosystem outside protected areas. Both forest blocks are threatened by invasive species of Lantana camara covering spaces inside them and at their perimeter; c) There is community willingness to share in the restoration of the natural forests and the regular management interventions needed, via co-management; this will reduce the otherwise relatively high cost of maintaining small category IV PAs; d) the JADF exists and can, with the empowerment from the project and together with MoE/RWFA, provide the effective long-term monitoring; e) Because these PAs are being created within the context of an FLR for the landscape, they will receive the required overall ecosystem approaches, compatible management in other parts of the landscape; f) Category IV protected areas are not strictly protected from human use; scientific research may take place but generally as a secondary objective.

MoE/RWFA will establish small units to manage the new PAs and provide the relevant facilities for managing them. They will organize surveillance and monitoring to reduce illegal logging, uncontrolled clearing, and encroachment for agriculture and mining. The project will then facilitate the development of a set of PA management and business plans for the two PAs, developed with the active participation of key stakeholders to be implemented using a range of governance mechanisms, including co-management and other community-based systems (implementation of these co-management plans is financed under output 3.2). Stakeholder Working Groups (SWGs) will be established for the natural forest under protection, eventually to become institutionalized as Forums within the governance system of the forests

⁷⁴ Rwanda's average population density is 459 per Km²

⁷⁵ http://w Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge management ww.worldagroforestry.org/treedb/AFTPDFS/Osyris_lanceolata.PDF

under protection; SWGs should comprise representatives of local communities, CSOs, NGOs, research and educational institutions, private sector and other Government Agencies having an interest in the PA. To the extent possible, SWGs will be gender balanced.

Sample Activities

- a. Form forest protection Stakeholder Working Groups;
- b. Assess biodiversity, classify and propose for gazettement
- c. Prepare nomination files for the gazettement to legalize status of the natural forests, in a highly participatory process;
- d. Submit the files;
- e. Design and implement a lobby strategy to ensure that gazettement does not delay unnecessarily;
- f. Assess requirements for establishing small light units to manage the new PAs;
- g. Establish the facilities to operationalize the PA management units;
- h. Design PA and implement management plans, business and sustainable financing plans;
- i. Organise and routinely implement surveillance and monitoring to reduce illegal logging, uncontrolled clearing, and encroachment for agriculture and mining

Output 3.2: Buffer zones and hill-tops afforested with a mix of indigenous trees and higher productivity plantations ⁷⁶ (GEF Grant 900,000; Co-fin 3,000,000): Lead Implementing Agency – REMA in partnership with RWFA/MoE.

Under this output, the project will facilitate the Participatory Forest Management of about 300 ha of forests, with at least ten community groups. Selection of the community groups to participate will be under the overall guidance of the FLR plans, on the basis of proximity to the natural forests (especially those living in the former corridor connecting the Kibiri and Muyira forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their livelihoods. These co-management groups will be facilitated to develop and sign co-management agreements with RWFA detailing the roles and responsibilities of all parties involved, sustainable harvesting regimes and benefits to be accrued by the communities. To the extent possible, these co-management agreements will take gender issues and the Environmental and Social Management Plan on board. Part of the communities' responsibilities will be afforestation of the degraded forest with indigenous trees and clearing Lantana camara from the natural forests and buffer zones. These tasks will utilize the Umurenge Programme. which provides cash transfers as payment for public works. In addition, interested youth groups (both men and women) will be supported to convert Lantana Camara into charcoal briquettes. Part of the benefits for the communities will be harvesting of non-timber forest products (NTFPs) from the natural forests, under sustainable use plans. The project will provide training on improved harvesting techniques, processing, packaging and marketing, to those engaged in NTFP value chain (financed under outcome 2).

The project will also link individuals and/or groups willing to establish or improve productivity of at least 1,000 ha of existing plantations to the New Forests Company (NFC)⁷⁷, based in Nyanza. The NFC started operations in Rwanda in 2013, after signing a 49-year concession agreement with the GoR, to develop

⁷⁶ Species of plantation to be determined by the demand for wood products from the NFC but will likely include Eucalyptus, Pinus, Callitris, Cypress and Grevillea. Indigenous species likely to include *Osyris lanceolata*

⁷⁷ NFC is a Mauritius based company with management services offices in Johannesburg. Besides Rwanda, in East Africa it operates in Uganda and Tanzania. The Rwanda Development Bank (BRD) has shares in the NFC.

and make productive an area of 10,046 hectares (ha) around Nyungwe National Park, in southwest Rwanda⁷⁸. The planted area amounts to 8,215 ha of which 65 percent is pine, 15 percent eucalyptus and 20 percent other species⁷⁹. NFC has a plant in Nyanza district (one of the project districts), which produces timber poles for electric transmission, with a capacity for 120,000 poles per year. The plant started operations in 2016, with annual input capacity of 13,000 cubic meters, which has doubled to 26,000 cubic meters. Despite being located in one of the project districts, there is minimal participation by the people in the region, with most timber being sourced from the Nyungwe buffer zone, buying pole materials from out-growers and farmers. With support of the project, MINLAF will identify potential farmers and/or groups interested in tree farming (via plantations) and facilitate linkages to the NFC⁸⁰.

The project will also facilitate interested entrepreneurs to set up tree nurseries, to be financed through low interest loans dispensed through local cooperatives (and subsidized by the project). Nursery locations and species stocked will be carefully planned not to be undermined by the free seedlings issued by the NFC. The entrepreneurs will be linked to the Tree Seed Centre for training on tree propagation and supply of quality seeds/seedlings/propagation materials, especially of indigenous species and plantation species not being provided by the NFC. The project will in turn support the Tree Seed Centre to improve the genetic quality of the species they stock, as well as increase the variety of trees stocked. In addition to the training offered by the NFC, the project will provide required and relevant additional skills on tree husbandry, planting, processing and marketing timber products, financed and delivered under outcome 2.

Sample Activities

Under Participatory Forest Management (PFM);

- a. Develop criteria and apply it to select villages/communities where PFM is appropriate, mindful of ESMP (from Output 1.2);
- b. Undertake consultations and negotiations with the villages on roles, responsibilities, benefits, and develop co-management agreements, signed by the relevant authorities;
- c. Undertake an assessment of the extent of deforestation and degradation of the natural forests and design a reforestation program, agreed to by all relevant stakeholders;
- d. Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company as described under output 3.3) working out a financial arrangement for entrepreneurs, through cooperatives;
- e. Facilitate afforestation via VUP approach, and in line with international best practices, ensuring that i) plantation, where necessary, are sited away from areas of critical habitats and will not lead to the conversion of natural habitats; ii) they will not be sited in areas recently degraded (hence can be afforested); ii) they are environmentally appropriate⁸¹;

⁷⁸ The Nyungwe National Park limits with Burundi, to the south, and Lake Kivu and the Democratic Republic of the Congo to the west. The Nyungwe rainforest is probably the best preserved mountain rainforest in Central Africa.

⁷⁹ The plant in Nyanza is currently only engaged on Electric Transmission timber poles. Other products, such as trusses, grooved timber, are being produced in some locations adjacent to Nyungwe Forest. Other products like ceiling boards and other construction materials are in planning phase

phase ⁸⁰ NFC applies best international practices, using improved tree species and sustainable rotation scheme where new species of trees are planted to keep the cycle going and to improve carbon sequestration. Furthermore, NFC gives seedlings to farmers at no cost to grow woodlots, makes follow ups to check on performance of the trees and advices farmers when it's time to thin and prune. As of March 2017, it distributed more than 350,000 seedlings for over 250 hectares to private community-based enterprises (CBE) growers. It also supports local based community enterprises-out growers associations with seed money amounting to 1000 USD through SACCO account for promotion of seedlings. The money is used as revolving fund rotating to different cooperatives to support kick start on trees nurseries projects. Moreover, it has a wider social programme

⁸¹ Ensure site and natural species matching, use of integrated pest management, prevent spread of invasive species, do not degrade soil, promote protection of natural forests, set aside high conservation value areas, provide wildlife corridors.

socially beneficial⁸², economically viable⁸³ and utilize native species wherever feasible, giving preference to small-scale community-level forest management approaches; iv) that the UNDP SESP guidelines on plantations will be followed ensuring that there will be no introduction of known invasive species, no introduction of any alien species without risk assessment, and that possibility of accidental introduction of invasive alien species will be considered and managed;

- Undertake an assessment of the current and potential NTFPs production and identify f. individuals, groups and/or cooperatives harvesting and trading in them (in conjunction with output 3.3);
- Identify challenges and facilitate provision of training, materials and technical support to g. improve harvesting, processing, packaging, and linkages to markets for NTFPs (in conjunction with Output 3.3):
- h. Monitor progress, success and challenges to afforestation and take adaptive/corrective measures to ensure high seedling survival rates (in conjunction with the M&E and knowledge sharing tasks.

Under establishing plantations outside of the PFM arrangements;

- Undertake an assessment of the assistance provided to the Tree Seed Centre by other projects and identify the role this project should play in further improvement of the quality of seedlings;
- b. Design an action plan and implement to ensure that implementation of the FLR plans is supported by high quality seedlings of both indigenous and plantation species, widely available in the project sites;
- Using the FLR plans, and with reference to the PPG assessments on forests and forest C. productivity, identify plantations and small natural forests owned by both individual and institutions with potential for improvement on species mix, higher productivity species and techniques, clearing of Lantana camara and design an action plan to improve all aspects;
- d. Support the establishment of Private Forest Owners Association and/ or forest management committees:
- e. Negotiate with the forest owners to implement improvements, assisted by the project, under clear agreements that spell out roles and responsibilities, benefits, etc.;
- Using the FLR plans, identify areas currently not forested but with potential for f afforestation, including land owned by individuals and institutions;
- Design and implement a strategy to identify the owners, convince them of the benefits of g. afforestation (with both indigenous and plantation species), negotiate action plans for afforestation, in line with international best practices, ensuring that i) plantation, where necessary, are sited away from areas of critical habitats and will not lead to the conversion of natural habitats; ii) they will not be sited in areas recently degraded (hence can be afforested); ii) they are environmentally appropriate⁸⁴; socially beneficial⁸⁵, economically

⁸² Involve communities in planning and management, respect social and economic well-being of forest workers and local communities, respect indigenous rights, safe working conditions.

⁸³ Sufficient capital for establishment costs and technical capacity for planting and stand management

⁸⁴ Ensure site and natural species matching, use of integrated pest management, prevent spread of invasive species, do not degrade soil, promote protection of natural forests, set aside high conservation value areas, provide wildlife corridors. 85 Involve communities in planning and management, respect social and economic well-being of forest workers and local communities, respect

indigenous rights, safe working conditions.

viable⁸⁶ and utilize native species wherever feasible, giving preference to small-scale community-level forest management approaches; iv) that the UNDP SESP guidelines on plantations will be followed ensuring that there will be no introduction of known invasive species, no introduction of any alien species without risk assessment, and that possibility of accidental introduction of invasive alien species will be considered and managed;

h. Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company);

Output 3.3: SLM/SFM practices implemented in > 25,000 ha of agriculture land, including agroforestry on 1,000 ha of consolidated land (GEF USD 1,350,000; Co-fin – 4,493,366): Lead Implementing Agency – REMA in partnership with MINAGRI/RWFA

Under this output, the project will facilitate the formation and/or revival of Farmer Field Schools (FFS) through which the support to SLM and SFM will be delivered, covering over 25,000 ha, linked to income generating activities, to the extent possible, and taking gender issues into consideration. Focusing particularly on Nyanza District which has very low levels of protective measures (Tables 7 and 8), the project will support the FFS groups to plant tree crops such as fruit trees as agroforestry, in a land consolidation context, in addition to general improvements in land management practices. The likely tree crops are cassava, shade coffee, fruits (passion, avocado, pears, etc.). The project will adopt a value chain approach where households will be facilitated to collectively put at least 1,000 hectares under land consolidation, growing one tree crop for the markets, in addition to food crops. The project will then provide extension support (skills acquired under outcome 2) and linkages to agro-processors and markets. This will ensure that agroforestry is linked to income generating activities, with additional benefits in increasing household incomes.

National /District	% of land Irrigated	% of Land protected against Soil Erosion	% of land Consolidated
Rwanda	4.0	73.0	15.7
Gisagara	5.7	68.8	8.4
Kamonyi	6.3	90.6	4.7
Nyanza	1.17	0.6	15.5
Ruhango	3.9	85.1	4.7
Average for 4 districts	4.3	61.3	8.3

Table 7: Percentage of land with measures to combat land degradation in Rwanda and target districts, 201487

Table 8: Main crops cultivated in the target districts, 201888

District	Crops cultivated
Gisagara	Beans, maize, banana, sweet potatoes, sorghum and cash crops such as coffee and rice (40% of the population of the district grow rice – DFMP, 2017).
Kamonyi	Beans, maize, banana, cassava, Irish potatoes, Fruity trees, Rice and legumes (DDS, 2018)
Nyanza	Beans, maize, banana, cassava, soya, sorghum, fodder (because they do keep cattle for milk business which is also a great source of income of the people of Nyanza) and coffee and rice

⁸⁶ Sufficient capital for establishment costs and technical capacity for planting and stand management

⁸⁷ Source: EICV 4, 2016.

⁸⁸ Sources: EICV 4, DDS, 2018 and interviews in the field

	as a cash crop (DDS, 2018)
Ruhango	Beans, maize, banana, cassava, sorghum, soya, coffee and rice.

The project will also increase the percentage of farmers keeping livestock, both cows and small stock, in all the districts. The One Cow per Poor Family programme (Girinka)⁸⁹ has demonstrated that increasing livestock in homes encourages sustainable land management practices by increasing availability of organic manure, encouraging planting of fodder crops (which offer soil cover), improving diets and incomes (sale of milk and other livestock by-products), thereby increasing livelihood options away from dependence on cultivation. Given the scarcity of land in the country, livestock keeping is strictly on zero grazing (by law), hence promotes the growing of Napier grass and other forage plants. In addition, the PPG assessments found that keeping livestock accelerates the adoption of terracing⁹⁰.

In Rwanda, terraces are principally designed to (1) reduce soil losses through enhanced retention and infiltration of runoff, (2) promote permanent agriculture on steep slopes and (3) promote land consolidation and intensive land use. Newly established terraces should be protected at their risers and outlets, especially in the first or second year of the establishment. After establishing a terrace, a riser should be shaped and grasses or shrubs/trees should be planted soon after. Napier grass is often planted as forage for livestock. The risers on radical terraces are therefore seen as a new production niche of forage as a result of land shortage and a strict zero grazing policy. Terraces have the potential of improving farmers' livelihoods and increasing the resilience of a degraded environment in Rwanda⁹¹

The project will therefore facilitate at least 2,000 homesteads (minimum 10,000 people) homesteads to acquire livestock (either cows or small stock), paired up with support to adopt, renew or increase the percentage of a household's land under terracing. Wherever possible, the livestock will be sourced locally to make the project cost effective and increase trading locally⁹². Distribution of livestock will be gender sensitive, benefitting all gender groups, including the youth. It will also be based on a communal sharing system, where each recipient of a cow or a small stock passes on two calves/kids/piglets to others, in payment. This is likely to increase the number of households receiving livestock to over seven thousand by the end of the project (discounting for male offspring and about 75 percent fertility rate). The number will be higher where pigs are involved. Terracing will utilize the Umurenge Programme (VUP), which provides cash transfers as payment for public works. The project will also support the livestock farmers with veterinary services (via the veterinary department) to address the serious challenges facing livestock farmers from pests and diseases, poor breeding services and inadequate veterinary services. Table 9 shows livestock ownership across the four districts.

District	Percentage	National Average
Gisagara	83	gr
Kamonyi	67	68%
Nyanza	68	
Ruhango	60.6	

Table 9: Households Raising Livestock in target districts, 2014

Sample activities

⁸⁹ The 'Girinka' programme has been complemented with other initiatives, such as the establishment of the Rwanda Agriculture Board (RAB), a Government mechanism to spearhead the extension services for livestock; strengthening the national dairy platform and livestock related cooperatives; the implementation of the Rwanda Dairy Competitiveness programme, which was funded by United States Agency for International Development (USAID).

⁹⁰ SLM and SFM Baseline Assessment Report – annex 16 to this Prodoc

⁹¹ Kagabo and Bizoza, 2012: The importance of Terraces in Rwandan Agriculture. Academic Journal.org

⁹² According to Ministry of Agriculture and Natural Resources (MINAGRI), the Girinka programme distributed 83,144 cows in the Southern Province from 2006 to August 2017 (Rwanda Agriculture Board, 2017).

Under Agroforestry

- a. Using the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority;
- b. Undertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support required to make existing ones effective;
- c. Facilitate the formation of new FFS where needed and provide support necessary to make them function effectively;
- d. Identify areas suitable for land consolidation for the purposes of growing tree crops for the markets;
- e. Facilitate the negotiations and land consolidation process;
- f. Facilitate provision/availability of planting materials through cooperatives, ensuring that no known invasive species are introduced and that the probabilities of newly introduced species being invasive is considered and provisions for managing the risk made;
- g. Provide extension support (skills acquired under outcome 2) and linkages to agro-processors and markets.

Under Livestock for Terraces

- a. Using the FLR plans, identify areas suitable for SLM via terracing and determine areas for project priority;
- b. Undertake an assessment of the current state of terracing/SLM in the selected areas and identify potential FFS groups to pilot the livestock for terraces initiative;
- c. Design agreements with the FFS groups detailing the system parameters (types of livestock preferred, size of terrace per unit of livestock, monitoring system to ensure compliance with maintaining of the terraces once livestock is received; sharing arrangements (passing on livestock to others) and a roster for sharing, rules and regulations governing the livestock sharing within the FFS and between FFSs and the project/authorities;
- d. Acquire and place livestock within the FFS;
- e. Identify providers of veterinary services and assess their capacities/challenges, work out an action plan to improve services for the FFS receiving livestock;
- f. Build the terraces (via VUP), monitor and report their effectiveness.

Output 3.4: Wood consumption reduced by 25% from improved household and institutional cooking energy technologies (GEF Grant 1,467,538; Co-fin 7,000,000): Lead Implementing Agency – REMA in partnership with FONERWA and MININFRA

Under this output, the project will improve the efficiency of the charcoaling value chain and provide incentives for the adoption of improved cooking stoves by households and institutions.

Under improving the charcoaling value chain, the project will upscale the interventions being implemented by the REMA project on "Improving the Charcoal Value Chain" that is being implemented in North western part of the country⁹³. The project will therefore facilitate charcoal producers and sellers not yet in cooperatives, to form or join existing cooperatives. New cooperatives will be facilitated to develop constitutions explaining rules and regulations as well as governance structures. The project will support at least ten charcoal producers and sellers cooperatives to adopt carbonization, processing and

⁹³ Improving charcoal value chain: Funded by the Norwegian Development Fund and REMA Project: Project Period: 2017 — 2019. NDF grant EUR 3.7 million; Partner Agency: The World Bank; Implementing Agency: Rwanda Environment Management Authority (REMA)

packaging technologies/techniques, to improve the value, quality and marketing of the charcoal produced. Cooperatives will be provided with mobile sawmills and furnaces proven by the REMA project to increase productivity; they will also be trained to manage and maintain the equipment and business planning. This will complement the training provided under Outcome 2. The project will also improve distribution links between production and the markets and add value through labelling and branding of certified green charcoal.⁹⁴ In addition, the project will facilitate improved woodlot management for the purposes of charcoal production, ensuring that individuals and cooperatives have access to technical information on suitable species for charcoal production and techniques of charcoal production without cutting down trees.

The project will increase private sector participation in manufacturing and trading in improved household and institutional cookstoves by removing the financial barriers to private sector engagement, via two financial incentives schemes that have been tested by a similar project in Sierra Leone⁹⁵: a) a start-up grant for cookstove producers to cover the cost of production, with a gradual reduction towards the end of the project; b) an end-user rebate for rural households to subsidize the cost of acquiring improved stoves. The operationalization of the two incentive schemes will be fine-tuned during the project inception period based on the suggestions below, which take into account UNDP's policies, procedures and financial rules and regulations.

Start-up grant: The project will apply UNDP's policy on performance-based payments ⁹⁶ to competitively recruited Responsible Parties, which are payable contingent upon the achievement of specific, pre-agreed results (outputs/activities), validated by the Project Board or an Independent Assessor. The project will therefore recruit, in a competitive gender sensitive process, a Responsible Party to play an intermediate role between the project and the cookstove producers. The Responsible Party, which could be FONERWA based on its mandate and experience on cookstoves production and dissemination, will enter into agreements with both UNDP and cookstove producers. The Responsible Party will recruit, in a competitive and gender sensitive process, experienced cookstove producers to produce and sell cookstoves locally, for which it will be paid. The amount to be paid per stove could be equivalent to, or lower than the cost of production. The project team, with guidance from UNDP, will prepare a Contribution Agreement, which will outline the following:

- a. The theory of change explaining how the results are to be achieved;
- b. Definition of results, identification of risks and assumptions;
- c. The objectively verifiable indicators to measure the achievement of the results and the performance targets against the indicators which would trigger payments;
- d. The payments terms linked to the validation of the results including a provision for the non-achievement of results;
- e. A monitoring schedule that provides for the assessment of "minimum of progress thresholds" that indicate the ability of the Responsible Party to achieve the results; and,
- f. A provision for early termination for a scenario where it is determined that continuing the project will not achieve the required results.

based+payments&rlz=1C1CHBF_enKE807KE807&og=UNDP%E2%80%99s+policy+on+performancebased+payments&ags=chrome..69i57.1395j0j7&sourceid=chrome&ie=UTF-8

⁹⁴ The concept of marketing green charcoal is being tested by the Norwegian/World Bank project on scaling up sustainable charcoal, which will inform the proposed project accordingly, once the concept has been proven (or not).

⁹⁵ Project Title: Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone (PIMS 4909)

⁹⁶ https://www.google.com/search?q=UNDP%E2%80%99s+policy+on+performance-

End user rebate: The project will apply UNDP's micro-capital grant policy, usually provided to civil society (NGOs or CBO), which are subject to the following thresholds:

- a. An individual micro-capital grant may not exceed \$150,000; and,
- b. A recipient organization may not receive more than a total amount of \$300,000 in microcapital grants within the same project.

The project will recruit, in a competitive and gender sensitive process, a CSO (or several CSOs) to provide the end user rebate to both households and institutions. The end user rebate will be handled through a voucher programme, working with small shops, kiosks and enterprises. The vouchers will qualify rural households and/or institutions for partial or full subsidy, depending on assessments of affordability to be conducted by the CSO. To the extent possible, the project will build on positive experiences and existing cookstove dissemination initiatives by all institutions relevant to the process (such as FONERWA, Clean Cookstoves Initiatives).

The project will disseminate at least 10,000 cookstoves each year, with a total of about 60,000 at the end of the project (with 1% being institutional cookstoves). This will reduce pressure on the forests and emissions by at least 2 tCO_{2e} per stove per year⁹⁷, and 360,000 tCO_{2e} in six years. Table 10 shows the emission reductions calculations from the cookstoves.

Sample Activities

Improved charcoaling value chain;

- a. Undertake baseline assessment of existing charcoal producers technical and organisational capacity.
- b. Training of 500 charcoal cooperative members in cooperative management, improved charcoal production technologies, licensing and permitting for tree cutting and charcoal production, and marketing of certified green charcoal, if found feasible (under Outcome 2).
- c. Undertake market analysis to better understand the demand and supply of charcoal in the project area, and to design activities that will boost the value and accessibility to the potential markets.
- d. Supply wood and charcoal processing equipment (mobile sawmills, improved mobile kilns and storage/transport facilities)
- e. Undertake field evaluation on uptake of improved technologies, on operational experiences and the efficiency of the kilns and quality test of the charcoal Follow-up to secure uptake of improved kilns (as part of monitoring, in conjunction with Outcome 2);

On improved cookstoves;

- f. Recruit, in a competitive and gender sensitive process, Responsible Party to play an intermediate role between the project and the cookstove producers;
- g. Prepare a Contribution Agreement to guide the interactions between the Responsible Party and cookstove producers;
- h. Recruit, in a competitive and gender sensitive process, a CSO(s) to implement the end-user

⁹⁷ A study in Ethiopia Highlands found emissions reductions of 2.145 tons of CO2 per each improved cook stove per year. Improved Cooking Stoves in an Afromontane Forest, Ethiopia Elisabeth Dresen 1,*, Ben DeVries 2, Martin Herold 2, Louis Verchot 3 and Robert Müller 4: Land 2014, 3, 1137-1157; doi:10.3390/land3031137; land ISSN 2073-445X www.mdpi.com/journal/land/. Also UNEP RISOE (2013) estimated emission reductions of 2 to 3 tCO_{2e} per year per cook stove: Emissions Reductions Profile for Rwanda file:///C:/Users/ADMIN/Downloads/emissions-reduction-profile-rwanda.pdf

rebate programme for rural households and/or institutions;

- i. Prepare a work programme for the CSO(s) to guide the implementation of the end-user rebate programme;
- j. Supervise the work of both partnerships to ensure distribution of at least 10,000 stoves per year.
- k. Design and implement a communication strategy to promote widespread adoption of cookstoves

Project Year	Cumulative number of stoves disseminated	Emission reductions assuming 2 tCO _{2e} per year per cook stove
Year 1	10,000	20,000
Year 2	20,000	40,000
Year 3	30,000	60,000
Year 4	40,000	80,000
Year 5	50,000	100,000
Year 6	60,000	120,000
Total emission red stoves (3 years)	360,000	

Table 10: Calculating emission reductions from adoption of improved cookstoves

3.2 PARTNERSHIPS:

The project will be implemented under UNDP's National Implementation Modality (NIM). It will work closely with key partners and stakeholders from Government Authorities and Institutions, the private sector, civil society, CBOs and academia, as identified via the co-financing arrangements and as described in detail in Tables 1 and 2 of the Stakeholder Analysis Baseline Report (Annex 11). Coordination of partnerships will be led primarily by the Project Management Unit (PMU) and mainstreamed through the JADF and the FLR coordination mechanism created under Output 1. The Sector Specialist will develop a concrete plan for collaboration with each of the projects and partners outlined below. The plan will: a) confirm the areas of collaboration; b) establish an action plan for collaboration; c) identify a schedule for reviewing the collaboration and sharing actual lessons. This will be part of the project M&E and knowledge management system; hence, it should not incur extra costs. Key partners include the following:

The Restoration Initiative (TRI): TRI is a GEF funded initiative supported technically by IUCN (lead agency), FAO, and the UN Environment Program, supporting FLR in Cameroon, Central African Republic, China, Democratic Republic of Congo, Guinea-Bissau, Kenya, Myanmar, Pakistan, Sao Tome and Principe and Tanzania. The support is provided under three core results areas, namely: Policy development and integration: providing support for country-led efforts to identify and integrate FLRsupportive policy: Implementation of restoration programmes and complementary initiatives: providing support for the promotion and implementation of integrated landscape management restoration plans; Capacity building and finance mobilization: providing support to unlock and mobilize funding for FLR and to strengthen the ability of institutions and people to plan and manage FLR. A fourth Global project on knowledge sharing and partnerships provides support for the capture and sharing of innovative experiences and best practices, raising awareness of FLR needs

and benefits, and developing and strengthening critical partnerships. The proposed project will in particular tap into the knowledge sharing opportunities provided by the Global KM project. It is assumed that the TRI projects start implementation in 2018 as planned and that they will provide lessons in good time to inform this proposed FLR project.

FONERWA – Rwanda's Green Fund set up by the Government to support environment protection and deal with the impact of climate change. The fund acts as the avenue through which development partners can contribute to Rwanda's green growth ambitions. Private sector contributions are considered as grants and project co-financing in the short-term, and investment in the long-term, among others. External capitalization sources include bilateral and multilateral development partners' contributions and access to international environment and climate funds. FONERWA is implementing several projects from which the Mayaga FLR project design has drawn lessons, and with which implementation will be coordinated. Most of its projects have addressed land management and soil erosion control; alternative renewable energy and improved energy efficiency; rainwater harvesting systems; sustainable livelihood and Food security enhancements. Most FONERWA projects (a few described below) use the VUP modality.

The just concluded "Integrated Land, Water Resources and Clean Energy Management for Poverty Reduction Project" (2014-2017) supported the sustainable management and conservation of natural resources, more productive agriculture to reduce human pressure on Volcanoes National Park and reduce greenhouse gas emissions. The project was implemented in some cells of Musanze District and addressed severe erosion caused by deforestation, over cultivation of hillsides and intense rainfall events linked to climate change. It protected 1,400 hectares of watersheds, 50km of ravines and rivers, created a 1,000 hectare buffer zone of Volcanoes National Park, supported two green model villages, distributed 1,000 improved stoves and 50 biogas digesters, and aimed to create over 1,500 green jobs. In Gatsibo, FONERWA funding implemented a project (2015 – 2017) aimed at rehabilitating 500 ha of degraded forests; creating 3,000 ha woodlots for environmental protection, agroforestry on 15,000 ha for soil fertility and promoting improved cook-stoves in order to reduce pressure on forest resources. This project benefitted 19,317 poorest households which represents 17% of the total population. The two projects developed extension and training materials on sustainable land management, improved energy systems and improving household incomes, for all levels of stakeholders that the proposed project will build on.

FONERWA is currently implementing a project on Sustainable and Responsible Mining (2017 - 2018); which aims to develop a model mine based on sustainable and environmentally friendly practices and modern technologies. This will start with ore recovery, to mineral recovery, energy and water use efficiency and thereafter rehabilitation of mined out areas. The project will rehabilitate existing mining site and develop the best practices which will transform this site into a modern and environmental friendly mining site, to demonstrate the extent to which natural resource management and effective mining technologies point the way for Rwanda to achieve its national development strategies in mining sector. Lessons from this project will inform the rehabilitation of several Hilltops degraded by uncontrolled mining.

The proposed project will collaborate with FONERWA on the implementation of three Outputs where grants are likely to be involved: Output 3.2: Buffer zones and hill-tops afforested with a mix of indigenous trees and higher productivity plantations; Output 3.3: SLM/SFM practices implemented in 25,000 ha of agriculture land: Output 3.4: Wood consumption reduced by 25% from improved household and institutional cooking energy technologies. FONERWA will be used as the mechanism to disburse grants on the basis of the VUP model (payment for public works) on terrace building, rehabilitating public forests, credit/grant systems for improved cookstoves, etc.

Rwanda Agriculture Board (RAB) and Girinka: Girinka program (One cow per poor Family) was inspired by the Rwandan culture and initiated by His Excellency the President of the Republic of Rwanda in 2006. The program was approved as one of the Vision 2020, EDPRS and IDP implementation measures. This program enables poor households to own an improved dairy cow, which improves

livelihoods by increasing milk and meat production and improving soil fertility (using manure). The initiative has improved nutrition, and helped increase the earnings of beneficiaries from milk, milk products, meat and sale of manure. The program is implemented in two ways: (i) Girinka ingabirano (donation): a poor family receives a cow free of charge. When the cow calves, the calf is given to the neighbour who keeps it and gives the next calf to the next neighbour and so on. This procedure is called kuziturirana (credit revolving scheme). (ii) Loan (Girinka inguzanyo): a family gets a bank loan to buy a cow, where a family proves it can comply with the criteria necessary to receive the cow. For example: being able to construct a cow shed (Kraal), the field planted with different pasture species for nutrition purpose, etc. Girinka is coordinated by the Rwanda Agriculture Board (RAB), an agency of the Ministry of Agriculture. RAB is responsible for the selection, certification and distribution of cows, the management of the centralized budget and donations of both money and cows, the training of beneficiaries in animal husbandry as well as program monitoring and evaluation.

The proposed project will collaborate with RAB and Girinka on the distribution of cows for terraces, under Output 3.2.

Forest Investment Programme for Rwanda 98 under the Ministry of Environment: Rwanda developed a REDD+ Readiness Proposal (RPP) in 2014 with the objective of participating in REDD+ activities. However, the document which was to culminate in the development of a REDD+ strategy is not yet submitted to the UNFCCC. Some of the activities to have been taken up under the REDD+ have now been incorporated into the Forest Investment Program (FIP), developed into an action plan which in effect will implement the forthcoming REDD+ strategy that is expected to accrue national and international REDD+ related benefits. Rwanda's FIP has three target areas: (1) Support for Sustainable Agriculture through Agroforestry; (2) Support for Sustainable Forest and Landscape Management; and (3) Wood Supply Chain, Improved Efficiency and Added Value. The Investment Plan includes a clear country context, justification for implementing the proposed projects, analysis of existing legal, policy and institutional frameworks for implementation and summarizes the wide range of expected benefits to rural livelihoods, national development programmes and the contribution to GHG emission reductions. It also itemizes the specific components for each target area identified by the Integrated Household Living Condition Survey (EICV 4) 2013-2014, proposes geographical intervention areas and quantifies the resources that will be required. The Forest Investment Program was submitted to the World Bank Climate Investment Fund (CIF) in November 2017. Once the funding is secured and implementation started, the proposed project will collaborate very closely with the FIP implementation to identify and build on synergies and avoid duplication - along all the proposed outputs.

Nordic Development Fund (NDF) and the World Bank: The Nordic Development Fund (NDF) is financing (through the World Bank) a project on "Improving the Efficiency and Sustainability of Charcoal and Wood Fuel Value Chains", focused on North-Western Rwanda (Gishwarti-Mukura landscape) with a possibility to extend to other parts of the country. The project's total budget is 3,382,000 euros (approximately 3.5 billion Rwandan Francs). This NDF grant will benefit the WB-GEF Landscape Approach to Forest Restoration and Conservation (LAFREC) Project implemented by the Rwanda Environment Management Authority (REMA). NDF will support the National Seed Centre in order to improve and diversify the tree seed pool. The project will also target commercial tea factories' wood consumption and households' cooking needs through analysis and promotion of sustainable alternatives. Some of the key activities implemented by the project include improved woodlot management, improved tree seeds quality, efficient charcoal production and promotion of alternative sources of energy. The woodlot management part of the project will encompass forests in Gishwati-Mukura landscape. Building upon existing plans and training, the NDF-funded activities will initiate local-level planning of existing woodlots to improve management and increase productivity. The project

⁹⁸ https://www.climateinvestmentfunds.org/sites/cif_enc/files/fip_final_rwanda.pdf

components also include strengthening cooperatives to improve charcoal production techniques as well as the value, quality and marketing of the charcoal produced.

The proposed project will collaborate with the Improving the Efficiency and Sustainability of Charcoal and Wood Fuel Value Chains project on Output 3.4 (Wood consumption reduced by 25% from improved household and institutional cooking energy technologies). In particular, it will coordinate on supporting charcoal producer associations to engage in sustainable charcoal and the introduction of improved cookstoves, especially through cooperatives. It is assumed that the Improving the Efficiency and Sustainability of Charcoal and Wood Fuel Value Chains project will generate lessons that can be applied in the Mayaga region.

Indeed, the proposed project will coordinate with all related GEF and non-GEF projects dealing with FLR, improving energy efficiency, sustainable charcoal, Protected Area Management, and sustainable land and forest management programs. In particular, it will coordinate with the REMA, GEF-World Bank Landscape Approach to Forest Restoration and Conservation (LAFREC), whose objective is to demonstrate landscape management for enhanced environmental services and climate resilience in the Gishwati priority landscape. The project supports the application of the landscape approach to forest restoration and conservation for the improvement of ecosystem functions and services in the Gishwati-Mukura landscape, and the adjacent parts of the Nile-Congo Crest. It aims to arrest and eventually reverse the ongoing land conversion in the area through forest restoration (to the extent feasible) and agroforestry approaches in a manner that will maximize ecological connectivity and hydrological function in the landscape. The project supports stronger management of the biodiversity by upgrading of the remnant Gishwati natural forest area (the remaining natural forest area within the former Gishwati Forest Reserve) and the Mukura Forest Reserve to a single protected area and improving the Management Effectiveness of the new PA. The project facilitates coordinated planning at the landscape level and with individual communities and supports the implementation of tree-based landscape restoration approaches through provision of training, seeds, materials, and through payment for local labor. It also supports research and monitoring processes, to generate and share lessons on FLR widely.

The proposed project will coordinate closely with LAFREC in the implementation of Components 1 and 2 and Output 3.1 (improving management of 555 ha of high value forest and gazettement of part of it (354 ha) ready and submitted to Cabinet.

The New Forests Company (NFC); In 2011 the Rwanda Development Board (RDB) signed a 49-year concession agreement with a multinational private company, the New Forests Company (NFC)⁹⁹, to develop and make productive an area of 10,046 hectares (ha) around Nyungwe National Park, in southwest Rwanda¹⁰⁰. The planted area amounts to 8,215 ha of which 65 percent is pine, 15 percent eucalyptus and 20 percent other species¹⁰¹. In Rwanda, NFC operates in three business units: wooden Chromated copper arsenate treated electric poles, structural sawn timber for the building and furniture industry, and industrial charcoal renewable energy (biomass converted into energy). NFC's only plant in Rwanda to produce timber poles for electric transmission is in Nyanza, with a capacity for 120,000 poles per year following international quality standards. The plant started operations in 2016, with annual input capacity of 13,000 cubic meters, which has doubled to 26,000 cubic meters. The plant can meet the national demand and export to neighbour and other countries. While the company uses timber from the Nyungwe buffer zone, it also uses timber from third parties from other parts of the country. It buys pole

⁹⁹ NFC is a Mauritius based company with management services offices in Johannesburg. Besides Rwanda, in East Africa it operates in Uganda and Tanzania. The Rwanda Development Bank (BRD) has shares in the NFC.

¹⁰⁰ The Nyungwe National Park limits with Burundi, to the south, and Lake Kivu and the Democratic Republic of the Congo to the west. The Nyungwe rainforest is probably the best preserved mountain rainforest in Central Africa.

¹⁰¹ The plant in Nyanza is currently only engaged on Electric Transmission timber poles. Other products, such as trusses, grooved timber, are being produced in some locations adjacent to Nyungwe Forest. Other products like ceiling boards and other construction materials are in planning phase

materials from out-growers and farmers in other parts of Rwanda which encourages them to plant trees thus helping to preserve environment and also earn an income. However, at the moment Mayaga in general and Nyanza specifically are not particularly active in the provision of timber to NFC.

It is worth noting that NFC applies best international practices. In terms of forest management, it uses improved tree species and applies a sustainable rotation scheme where new species of trees are planted to keep the cycle going and to improve carbon sequestration. Furthermore, NFC has a close link with timber providers. NFC gives seedlings to farmers at no cost to grow woodlots, makes follow ups to check on performance of the trees and advises farmers when it is time to thin and prune. As of March 2017, it distributed more than 350,000 seedlings for over 250 hectares to private community-based enterprises (CBE) growers. It also supports local community-based enterprises out-growers associations with seed money amounting to US\$ 1,000 through Savings and Credit Cooperatives (SACCO) account for promotion of seedlings. The money is used as revolving fund rotating to different cooperatives to kick start tree nurseries projects. Moreover, NFC has a wider social programme. As of March 2017, NFC had spent USD 450,000 on community projects, executed ten clean water projects in communities around the forest, built four classroom blocks and built 300 km network of feeder roads, including connecting Nyungwe with the Nyanza plant. They are also engaged in community mobilization to NTFP businesses in and around Nyungwe zone and assisted communities in establishing 150 beehives in various cooperatives for beekeeping projects and high value honey production.

The proposed project will collaborate with the NFC for the implementation of Output 3.2 (Buffer zones and hill-tops afforested with a mix of indigenous trees and higher productivity plantations). It is assumed that the company will be operational for at least twenty years, and that it will accommodate new contract tree farmers.

UNDP has implemented many projects on improved Protected Areas Management, Sustainable Land and Forest Management in East Africa and beyond. The Sector Specialist will undertake an in-depth analysis of UNDP's portfolio and identify further projects with which the proposed project would collaborate. S/he will incorporate the identified projects into the learning program, identifying synergies and specific objectives for collaboration and designing a pragmatic plan to actualize mutual learning between the projects.

3.3 **RISKS AND PROPOSED MITIGATION**

Overall, the project has Moderate risk (Table 11). Although the country has an impressive record of effective and accountable project implementation, including in relation to Forest Landscape Restoration, the proposed project is complex, in terms of the range of both activities and stakeholders included, presenting a number of risks to timely and efficient implementation. The main risks are associated with the intrinsic complexity of a landscape management approach that involves elements of planning and implementation touching on biodiversity conservation, sustainable forest and land management, agriculture, and domestic energy. The project requires not just coordination of diverse sectors for effective implementation, but also the ability to manage initiatives that may come from these or other sectors that could threaten broader landscape objectives. A joint FLR/landscape planning working group and the FLR Thematic Group to support the JADF will mitigate this risk. In addition, the lead agency (REMA) has gained experience of managing several donor projects, including an FLR project currently under implementation.

In addition, the project design has emphasized focus on a single landscape and just three components, with simplified targets, to avoid dilution of effort and to encourage development of locally appropriate coordination structures for effective implementation. Complexities will however remain during implementation, requiring close monitoring of both activities and impacts and adaptive management in the face of potential physical or political contingencies. The M&E and knowledge management plans will be used to handle this risk.

Description	Type	Impact & Probabilit Y	Mitigation Measures	Owner	Status
Short term economic and livelihood considerations may take precedence over long term gains from landscape restoration	Strategic	P = 3 I = 3 Moderate	The project is oriented towards meeting both short-term livelihood needs (increased food production, clean energy, household incomes) and securing long-term needs (ecosystem restoration, reduce vulnerability by increasing resilience of agriculture and livelihoods). Under outputs 3.2, 3.3 and 3.4, the project will develop and support income generating activities to contribute to meeting immediate needs, particularly of the vulnerable poor.	PSC	Likely increase due to high population growth and continued dependence on agriculture, high poverty levels.
The currently high political support for FLR at the national, district and community level may not be enough to overcome difficulties of securing cross sector coordination and cooperation required for effective FLR planning and implementation – due to challenges of bureaucratic processes within each Ministry/sector	Operational	P = 3 I = 3 Moderate	Component 1 is set up to reduce this risk. The project will utilize an existing coordination mechanism – the Joint Action Development Forum (JADF), increasing its operational and technical capacities to lead the FLR planning process. Community participation will be secured through the community planning platforms, namely the Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage).	PSC	JADF is currently ineffective due to low operational and technical capacity.
Securing private sector engagement may be difficult due to the low levels of economic development at the local level, and limited cash economy	Economic/ strategic	P = 3 I = 3 Moderate	The project will link communities to the New Forest Company and other financial institutions (through cooperatives and resource user groups), and work with Government to provide incentives to the private sector. Despite this, there is still a slight risk that the model is not fully successful. The project will monitor this carefully and use adaptive management to correct course as issues arise.	Project Manager/ PSC	Declining with the entry of the New Forest Company and the introduction of markets in rural areas (for fruits and other produce).
Increase in the frequency and severity of extreme weather events in areas beyond those	Environmental	P = 3 I = 3	The project seeks to restore the ecological integrity of the agro-ecological system within the forest landscape restoration approach. This will strengthen the role of	Project Manager/	

Table 11: Description of Risks and Mitigation Measures

	Unknown for now, will be established during the inception phase and reported in the first PIR
PSC	PSC
ecological infrastructure in providing cost effective adaptation and reducing vulnerability in the face of climate change. Climate smart agriculture, restoring watersheds and adoption of agro-forestry are good ways of adapting livelihoods to effects of climate change.	The project will undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environmental and Social Management Plan (ESMP) will be prepared and implemented to ensure that the project meets its obligations under UNDP's SES, as related to this and all other risks, as determined necessary. The project has proposed Community Based Forest Management (under Output 3.2) with at least ten community groups, selected on the basis of proximity to the matural forests (especially those living in the former corridor community groups, selected on the basis of proximity to the natural forests (especially those living in the former corridor commeting the Kibir and Muyira forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their livelihoods, and under the overall guidance of the FLR plans. These co-management groups will be facilitated to develop and sign co- management agreements with RWFA detailing the roles and responsibilities of all parties involved, sustainable harvesting regimes and benefits to be accrued by the communities. To the extent possible, these co-management agreements will take gender issues on board. Part of the communities' responsibilities will be afforestation of the degraded forest with indigenous trees and clearing <i>Lantana</i> <i>camara</i> from the natural forests and buffer zones. These tasks will utilize the Umurenge Programme (VUP), which provides cash transfers as payment for public works. In addition, interested youth groups (both men and women) will be supported to convert Lantana Camara into charcoal briskets. Part of the benefits for the communities will be sustainable use plans. The project will provide training on improved harvesting techniques, processing, packaging and marketing, to those engaged in NTFP value chain (financed under outcome 2). The project will also link individuals
Moderate	P = 2 I = 3 Moderate
	Social
identified as critical in the NAPA. The most urgent climate risks are irregular rainfall, droughts, and floods associated with landslides.	With the gazettement of the Kibirizi-Muyira Natural Forests, as well as demarcation of boundaries to many remnant forest patches on numerous hill-tops, community rights of access may be restricted in specific areas.

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			of existing plantations to the New Forests Company (NFC), which will provide seed funding, training and seedlings to engage in tree plantations as a commercial venture. The project will also facilitate interested entrepreneurs to set up tree nurseries, to be financed through low interest loans dispensed through local cooperatives (and subsidized by the project).		
There are low levels of personal and institutional skills for forest restoration – and inadequate awareness of rights and responsibilities in the use of natural resources and forests in securing livelihoods and advancing local economic development	Social	P = 2 I = 3 Moderate	The project will undertake an in-depth Environment and P Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environment and Socio Impacts Management Plan (ESMP) will be prepared and implemented to ensure that the project meets its obligations under UNDP's SES, as related to this and all other risks, as determined necessary. Outcome 2 of the project has a strong focus on building technical capacity at the institutional level and providing skills for improved SFM and SLM to individual farmers. The project will implement a capacity building strategy (Outputs 2.1 and 2.2) that will enable both duty-bearers and rights-holders to fulfill their mandates sunder the Forest Landscape Restoration concept. In addition, an awareness raising program will be formulated, and disseminated to raise the awareness of especially rights-holders about their roles and responsibilities as well as their entitlements in accessing and utilizing natural resources for securing livelihoods and advancing local economies (under Output 2.3). Similarly, their responsibilities in doing so sustainably, so as not to affect similar rights of future generations. In addition, the stakeholder participation plan will be utilized to ensure that all relevant groups participate as expected. The project monitoring system will provide information to undertake adaptive management and provide any additional support which may be deemed necessary to maintain active participation by all relevant groups.	PMU, PSC	Declining with the current focus on FLR in the country, with several donor and government financed projects building capacity and awareness.
Women's access to resources could be restricted.	Social	P = 2 I = 3 Moderate	The project has formulated a draft gender strategy, based on P an initial gender analysis during the PPG. The draft strategy P will be refined under output 2.3, to guide project implementation, ensuring that gender consideration is systematized throughout the implementation process. That	PMU, PSC	Declining with the current government focus on gender equality and women's

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empowerment, with several programmes under the ministry responsible for gender to address historical inequalities	Unknown for now, will be established during the inception phase and reported in the first PIR
	PMU, PSC
will be done in coordination with the ESIA/ESMP preparation, to ensure synergies and alignment. The gender action plan (GAP) is in Prodoc Section 3.5.	To avoid these risks, the project work on afforestation, plantation establishment and harvesting NTFPs is guided by the Forest Landscape Restoration Concept, with risk management measures built into the design. Under output 2.2, the project will facilitate four districts to produce four FLR plans with action plans for implementation. Formulation of the FLR plans will follow the methodology introduced by the World Resources Institute (WRI) and IUCN and already tested in the country by the former Ministry of Natural Resources ¹⁰² , as recently modified and applied for the Gatisbo FLR baseline conditions assessment ¹⁰³ . Plantation establishment is recognized as one form of restoration exercise under the forest landscape restoration concept, which builds in risk management measures. Plantations will not lead to the conversion of natural habitats and will not be sited and areas recently degraded (hence can be afforested). In line with the FLR guidelines, the project will ensure that the plantations are environmentally appropriate ¹⁰⁴ ; socially beneficial ¹⁰⁵ , economically viable ¹⁰⁶ and utilize native species wherever feasible, giving preference to small-scale community-level
	P = 2 I = 3 Moderate
	Environmental
	I he project will encourage harvesting of non-timber forest products in natural forests (but not harvesting of timber); it will involve development of plantations on 1,000 ha and reforestation of degraded natural forests and the buffer zones. These measures pose risks of overharvesting natural forests or introducing invasive species during restoration.

102 Ministry of Natural Resources - Rwanda (2014). Forest Landscape Restoration Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRL viii + 51pp.

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Restoration Progress through Biophysical, Socioeconomic and Governance Indicators: Gatsibo District, September 2017. 103 World Resources Institute, Ornanong Maneerattana, Fred Stolle, Tesfay Woldemariam, 2017: Baseline Conditions of Forests and Landscapes in Gatsibo District. Methodologies for Understanding

value areas, provide wildlife corridors. 105 Involve communities in planning and management, respect social and economic well-being of forest workers and local communities, respect indigenous rights, safe working conditions. 106 Sufficient capital for establishment costs and technical capacity for planting and stand management

			forest management approaches. In addition, the UNDP SESP guidelines on plantations will follow ensuring that there will be no introduction of known invasive species; no introduction of any alien species without risk assessment; and that possibility of accidental introduction of invasive alien species will be considered and managed.		
With the gazettement of the Kibirizi-Muyira Natural Forests, as well as demarcation of boundaries to many remnant forest patches on numerous hill-tops, there is a very low risk of physical displacement of people who may have encroached the natural forests (especially those who may have cultivated fields and charcoal burning activities in restricted use areas).	Social	P = 3 I = 2 Moderate	The project will undertake an in-depth Environment and Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environment and Socio Impacts Management Plan (ESMP) will be prepared, including a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's SES and the GoR Imidugudu (village) settlement policy, a disaster risk reduction intervention which resettles people in disaster risk reduction intervention which resettles people in disaster prone areas to government planned villages, provided with modern amenities (water, electricity, one cow per household, biogas, schools, community halls, etc.).	PSC PSC	Unknown for now, will be established during the inception phase and reported in the first PIR

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3.3.1 SOCIAL AND ENVIRONMENTAL SAFEGUARDS:

The PPG undertook socio-economic, stakeholder and gender analyses to increase understanding of the baseline situations, identify community related social risks including human rights issues, and develop risk mitigation measures using the SESP checklist; assess community roles in the project implementation; ensure local communities' understanding and consent to the project, and their participation in project development and implementation; and to design a gender assessment and gender mainstreaming strategy for the project. During the course of these duties the consultants conducted extensive consultations with a wide range of stakeholders including village communities as described in **Annexes 11** (Stakeholder Analysis Report), 12 (Socio-economics Report), and 7 (Gender Analysis and Action Plan).

As reported in the SESP Report (Annex 5), overall, the project mainstreams the human-rights based approach to development, improves gender equality and women's empowerment, and mainstreams environmental sustainability as overarching principles to strengthen Social and Environmental Sustainability.

On the human rights based approach to development, the project upholds human rights principles, including participation and inclusion, and ensuring equitable distribution of development opportunities and benefits. Project design, implementation and monitoring will be guided by participation, non-discrimination and accountability. Furthermore, both UNDP and the Government of Rwanda value participation highly, recognizing it as both an objective, as well as a means of development, which fosters critical consciousness and decision-making as the basis for all stakeholders to effectively recognize and own their roles and responsibilities in the process of development.

The participatory approach used during the design of the project will be adopted during implementation. This approach will ensure a rights based approach in four critical ways: i) it identifies rights holders (local communities) and their entitlements regarding the use of their natural resources for livelihoods and economic advancement, and builds their capacities to meet their roles and responsibilities towards improvement; ii) it identifies the Government duty-bearers and their obligations to provide technical assistance and policy guidelines to the communities, and strengthens capacities to meet their obligations; iii) ensures that project design is based on a causality analysis: drawing attention to root causes of declining ecosystem services and their impacts on local economic development, highlighting any potential systemic patterns of discrimination in cost and benefits sharing; iv) Critically, the three points will deepen understanding of the relationships between rights-holders and duty-bearers in order to help bridge the gaps between them; in particular if there are capacity gaps in legislation, institutions, policies and voice.

The participatory process adopted also creates broader alliances for social change in the communities in targeted Districts, promoting transparent budgeting and building capacities for budget analysis, supporting advocacy for information and statistics necessary to monitor the realization of results, building capacities for policy analysis and social impact assessment. Indeed, the project builds on and harnesses rather than replaces indigenous capacity for improving land and forest management. It will therefore promote learning, boost empowerment, build social capital, and create enabling environments necessary for the communities and the technical staff of relevant ministries to implement actions that improve livelihoods, reaching all gender groups; a condition necessary for human rights approach to development.

In addition, the project implementation will further the human rights approach by: iii) Delivering an improved extension package that seeks to reverse the loss of ecosystem services without which development cannot be sustained. It will educate the communities (rights-holders) to reinforce their perceptions about their rights to utilize natural resources for livelihoods and economic development, how those rights relate to their sustaining the natural capital, and hence sustainable development, and how they can contribute to increasing resilience of those livelihoods and the ecosystems, through improved

management practices (increasing tree cover); ii) It increases the incentives for better performance by duty-bearers, through support to renew their technical skills, providing resources for field activities, increasing participation with the communities, providing material for better plantation and agro-forestry germplasm; iii) It will strengthen central and local accountability mechanisms for improving the ecological and biological productivity of the land while simultaneously increasing resilience to climate change and returns on investment – the basis for resilient economic development, itself a human rights issue.

Human rights law recognizes that a lack of resources can impede the realization of human rights. This project brings in additional resources to enable the Government to further the attainment of the rights to utilize natural resources, sustainably, to advance local economic development. Towards this, the project seeks to increase local level productivity of land and market access for producers of agroforestry based enterprises. This will catalyze local economic growth, reducing poverty. The project strategy will ensure that women-headed households and lower income groups are given prioritized access to support for demonstration activities in local communities, e.g. support to agroforestry based food production and enterprises, biodiversity friendly sustainable land and forest management practices, and access to the high efficiency cookstoves.

On mainstreaming gender, Rwanda is one of the African countries with advanced gender equality indicators; for example, 56% of parliamentarians are women. However, the project design is based on a thorough social impact assessments and risk analysis, to ensure that selection of project activities is informed by the best practices of empowering all gender groups. Indeed, the project will support improved food production and introduce forest-based enterprises in the localities where women headed households have been identified as most likely to be experiencing poverty. The project is therefore expected to contribute positively to women and poor households by reducing the risks posed by declining ecosystems services, land productivity and natural resource degradation, many of which impact negatively on food security, livelihoods vulnerabilities and health; and, are therefore likely to affect vulnerable groups most severely (more details in Annex 7 – Gender action Plan and section 3.5 – Mainstreaming Gender).

On mainstreaming environmental considerations, the project supports implementation of national environmental sustainability priorities identified in the UNDAP by strengthening capacity for sustainable management of Rwanda's natural capital; in particular using SFM in a landscape approach to increase forest cover simultaneously with land productivity. Specifically, the project directly contributes mostly to Outcome 3: Rwanda has in place improved systems for: sustainable management of the environment, natural resources and renewable energy resources, energy access and security, for environmental and climate change resilience, in line with Rio+20 recommendations for sustainable development. Here, the project contributes directly to the following outputs: Output 1.3.2. Strengthened Capacity for Sustainable Environment, Natural Resources Management, Climate Change Mitigation and Adaptation; Output 1.3.4 Strengthened Appropriate Technologies and Skills for Resource Efficiency and Cleaner Production; Output 1. 3.5 Strengthened National Capacities for Planning and Management of Green Villages;

It also contributes to Outcome 1.2 in particular output 1.2.1 - Strengthened Agricultural Innovation and Value Chain. In addition, it contributes to outcome 3 output on Strengthened Capacity of National and Local Institutions for Research Generation and Utilization of Disaggregated Data for Participatory and Evidence-Based Policy Formulation and Planning; and, Strengthened Capacity of Institutions to Mainstream Gender Equality in Policies, Strategies and Budgets

The investment contributes to the Aichi Targets under the following strategic goals: Strategic goal B: Reduce the direct pressures on biodiversity and promote sustainable use, Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity; Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent introduction and establishment. The project directly contributes to the target on national forest cover set in the Economic Development and Poverty Reduction Strategy (2013-2018) which seeks to increase cover from 28% to 30% (including plantation and natural forests), and to increase the percentage of forest-based jobs to 3%, by 2020.

The project has been rated as Moderate risk according to the UNDP *Social and Environmental Screening Procedure* (see **Annex 5**). This is on account of the fact that five risk areas were rated as *Moderate* (Table 11).

3.4 STAKEHOLDER ENGAGEMENT AND PARTICIPATION PLAN

The landscape approach encourages full participatory engagement from the outset; by bringing stakeholders together and understanding what their specific expectations of the landscape are; which ecosystem goods and services it provides and how optimal land-use strategies can be formulated. Such participatory engagement – underpinned by facilitation, negotiation and compromise – is critical to successful FLR, hence it needs to be adequately catered for in both project design and implementation. Inclusive consultation is particularly important in aligning the often multi-scale objectives of internal and external land users. External stakeholders often encompass corporate entities whose role in the landscape is one of economic bottom lines that often run counter to rural development and environmental objectives. Commonly, these can include ecotourism, mineral extraction, agri-business, logging or industry. Equally, an external stakeholder may be promoting pro-environmental interventions, which may or may not be appealing to rural communities. Identifying and managing, rather than avoiding social conflict can assist in achieving mutually beneficial outcomes, critical for successful FLR. Communities will therefore need to be engaged and this will ordinarily take the form of co-operation, co-investment or compensation.

Stakeholder engagement and participation during project planning: A gender-responsive, culturally sensitive, non-discriminatory, and inclusive stakeholder consultation process underpinned the project formulation; it started during the PIF, and was entrenched during the PPG. During the PIF formulation, several small consultation meetings culminated in the National Portfolio Formulation Exercise (NPFE) meeting, all of which allowed stakeholders to identify priorities for the country's allocation under GEF 6. All relevant stakeholder groups (Government Organizations, Multilateral and Bilateral Agencies, NGOs, local communities and the private sector) attended a PPG inception workshop held in Kigali in January 2018. The objective of the inception workshop was to review the approved PIF and to confirm that the issues captured by it were still relevant and prioritized. In addition, the meeting provided an open and transparent process for the stakeholders to review the project objectives and strategies; budgets and implementation arrangements, indicators, identify baseline programmes and co-finance.

The PPG Inception workshop was followed by detailed stakeholder engagement in the four Districts through the baseline data collection process, the results of which are documented in Annexes 11 to 18¹⁰⁷. A second baseline information validation workshop was held in Musanze in April 2018, which reviewed the baseline reports, refined the project strategy and results in the light of the baseline assessments, crafted specific project outputs and discussed project implementation sites and identified project partners. The consultation process continued for the following two months (May to June 2018) via follow-up meetings, email communication and Skype calls. The consultation culminated with the Prodoc Validation Workshop, which took place in late July 2018, at which the stakeholders endorsed the submission package. The stakeholder participation plan in Table 15 was agreed.

¹⁰⁷ Annex 11 is the Stakeholder Analysis Report; Annex 12 is the Socio-economics analysis report; annex 13 is the household energy report; annex 14 is the legal, policy and institutional analysis report; annex 15 is the local market development report; annex 16 is the SLM/SFM practices baseline report; annex 17 is the vulnerability assessment report; annex 18 is the Forest productivity report.

Stakeholder engagement and participation during project implementation: The implementation of the project will be based on extensive engagement with stakeholders at all levels across the landscape. **Table 1** in **Annex 11** outlines the main roles/ responsibilities during project implementation for various project stakeholders at all levels, Table 2 described those organizations and initiatives providing opportunities for collaboration, while Table 3 describes the engagement of stakeholders by output. Overall, the project is set up to advance the uptake of integrated landscape management, which requires long-term collaboration among different groups of stakeholders to achieve the multiple objectives required from the landscape, such as agricultural production, the delivery of ecosystem services, cultural heritage and values, and rural livelihoods. The project will therefore support integration across sectors and scales, increasing coordination; similarly, it will ensure the harmonization of planning, implementation and monitoring processes at the landscape, to enable different stakeholders to negotiate their management objectives, to maximize synergies, increase productivity of the landscape and minimize negative trade-offs.

At a broad level, participation and representation of stakeholders will be conducted through the governance structures put in place by the project as outlined and depicted in the organogram in the Governance and Management Arrangements section (Figure 4), and through the existing governance structures at district and local levels (e.g. JADF, community planning platforms (Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage)), PA management authorities, and district and township administrations. Stakeholders will be consulted and engaged throughout the project implementation phase to: (i) promote understanding of the project's outcomes; (ii) promote stakeholder ownership of the project through engagement in planning, implementation and monitoring of the project interventions; (iii) communication to the public in a consistent, supportive and effective manner; and (iv) maximisation of linkage and synergy with other ongoing projects.

On the specific participation, the project will establish a thematic group on FLR under the JADF with the following stakeholders forming the basis of the collaboration:

- a. The Ministry of Environment, represented by two of its agencies: the Rwanda Environment Management Authority (REMA) and the National Fund for Environment in Rwanda (FONERWA);
- b. The Ministry of Environment, represented by the Rwanda Water and Forestry Authority (RWFA) and the Rwanda Land Management and Use Authority (RLMUA);
- c. The Ministry of Agriculture, including the Rwanda Agriculture Board (RAB);
- d. The National Industrial Research and Development Agency (NIRDA);
- e. Ministry of Local Governments;
- f. Ministry of Infrastructure
- g. Districts Decentralized Structures;
- h. Civil society, international organisations (IUCN/WRI), academia and community-based organizations.

Name of Stakeholder	Mandate and Role of Stakeholder	Role stakeholder could play in the Project
Rwanda Environment Management Authority (REMA) for	 ✓ Environmental Regulation Enforcement Mechanism ✓ Law Enforcement ✓ Coordination ✓ Supervision and ensure compliance to 	Lead project implementer; will host the Project Management Unit and be responsible for overall project coordination, monitoring and reporting. Lead implementer for Component 2 and Output 3.1 (Management enhanced for 555 ha of high conservation

Table 12: Stakeholder Participation Plan

the Ministry of Environment and Natural Resources (MoE) Ministry of Infrastructure (MININFRA)	 environmental friendly practices Training Fund mobilization Supervision, monitoring and evaluation of the cook stoves and other renewable energies in communities Facilitate or guide private sector engagement and dissemination of 	 value forest and gazettement of 354 ha of it as a PA). Will lead the formulation of the exit strategy, to be ready by end of the fourth year of implementation, and spearhead raising of funds for its implementation. REMA will therefore be responsible for the overall smooth implementation of the project, delivery and sustainability of results. Active participant in Output 3.4: Wood consumption reduced by 25% from improved household and institutional cooking energy technologies.
	improved cook stoves	
Rwanda Water and Forestry Authority (RWFA)	 Policy formulation, overseeing land and forestry related activities Supervision, monitoring and evaluation Research and monitoring, Assisting the Government in conducting forestry awareness programmes among communities Facilitating communities and community groups to prepare and plan for forests and tree planting and management Liaising between the private sector and communities to generate more community involvement in the forest sector and 	PSC members and lead on component 1 and output 3.2: Buffer zones and hill-tops afforested with a mix of indigenous trees and higher productivity plantations. Active members of component 1.
Ministry of Local Government (MINALOC)	 stronger private sector commitment Facilitate the participation of local communities; Control over land use and land allocation; Support decentralized forestry extension services; and Facilitate interventions of NGOs in the forestry sector 	PSC members and active participants in all the project outputs.
National Fund for Environment and Climate Change (FONERWA)	 Established to address cross sector financing needs (Funding) and promote green growth for environmental protection and poverty eradication 	PSC members and lead on all activities involving grants and VUP (payments for public works), especially under Output 3.4: Wood consumption reduced by 25% from improved household and institutional cooking energy technologies
Rwanda Agriculture Board (RAB)	 Strengthening the agriculture extension service and disseminating new agricultural practices 	PSC members and lead on Output 3.3: SLM/SFM practices implemented in > 25,000 ha of agriculture land. Active participants in all other outputs.
Private sector and the Private Sector Federation	 Creating wood-based industries; Acquiring management and harvesting licenses for public forests; Establishing industrial forest plantations; 	Facilitate a private sector driven approach for forestry development in line with the National Strategy for Transformation

	✓ Development finance	Co-Finance; collaboration with the project through their
partners - The World Bank	 ✓ Supports Private sector driven programmes ✓ Funds Disbursements 	active projects on FLR and related themes (improved energy, rural development etc.); provide additional funding where appropriate. The PMU will engage these development partners to identify opportunities for co- finance projects and pursue them.
INGOS – IUCN, WRI, WCS,	✓ Specialized expertise in FLR and related themes.	Co-finance; provide targeted support on FLR planning, PA gazettement and co-management. The PMU will draw the workplan for participation of the relevant INGOs and mobilize the partnerships as appropriate.
and CSOs such as ACNR, APEFA, FHA, GCI-Rwanda,	 Soil conservation and Forest landscape restoration, Community development; Integrated water management Sustainable agriculture; Climate change adaptation & mitigation; Gender mainstreaming, women and youth empowerment; Support and empowering demobilized soldiers in entrepreneurship through collaboration with RDF/Reserve Force in our field of intervention 	Co-finance and members of the PSC. Could be involved in providing community facilitation services; training and awareness raising campaigns. The PMU will engage these development partners to identify opportunities for collaboration on the project and pursue them, as appropriate.
members 'a community approach' is been deemed	 Owners of land Implementers Knowledgeable about tree species adaptable and profitable in Mayaga Plant trees, Monitor growth 	These groups will be the drivers of the FLR implementation. They will participate in all project outputs ensuring engagement of all gender groups. The PMU and the PSC will ensure inclusive, meaningful consultation, avoiding the common pitfalls that challenge participation, and ensuring that the mere conducting of, and attendance at, community fora is not used as proxy for true participation. They will ensure that consultation meetings are organized to enable meaningful consultation; thus organized with adequate notice for communities to prepare for them; held in accessible places and discussions held in a language that promotes genuine participation. The project will therefore empower communities to actively participate, providing local stakeholders an active voice in the design and management of the landscape, using relevant tools such as participatory land use planning, resource mapping, to genuinely understand local needs, identify potential conflicts and negotiate compromises. During implementation, communities will plant trees, get employed in nursery bed preparation and distribution, adopt SLM/SFM practices, adopt improved household energy cookstoves, act as private sector service providers for sustainability after the project life, suggest tree species needed, alert project facilitators about planting season, monitor the growth of trees and forests, can
Gender	✓ A Government Observatory Body to	report cases of tree theft and destruction and provide affordable labour as a cost sharing benefit. Provide technical backup to the monitoring of gender

Monitoring Office (GMO)	ensure compliance of gender principles in all sectors to ensure that women are part and Parcel of all processes that take place in their community's social, economic and political spheres.	sensitivity compliance in implementation of project activities, training and orientation, Advocacy as well as facilitate the drafting of the Gender and forestry Strategy and pushing for implementation
Rwanda Television and Radio (RTV) Through its local community radios	 ✓ Broadcasting to the communities the available opportunities ✓ Government and other organisations developmental programmes ✓ Awareness raising on the need to combat deforestation 	Awareness raising on the need to combat deforestation Broadcasting project activities and making them known Reporting on forests and the need for them Through soap Opera on Radio Rwanda embed messages on tree planting and the importance Encourage female and male participation, including youth

3.5 GENDER EQUALITY AND EMPOWERING WOMEN:

The gender rank for the project is **Gender targeted**, thus its results focus on the number or equity (50/50) of women, men or marginalized populations targeted, with strong gender interventions incorporated in the project design. The PPG undertook a gender assessment, which reviewed the relationships (ownership, control, roles in management/exploitation) between gender groups (females, males and youth) and natural resources. The assessment sought to understand how these relationships are likely to affect, or be affected by the project activities, and how they are likely to influence efficiency, equitable distribution of roles, responsibilities and benefits from the project as well as sustainability of the results. The assessment further focused on gender dimensions of forestry, land ownership and use, agriculture, household energy, poverty and gender-based division of labour at the household level. A summary of the findings is presented below and detailed in the Gender Analysis Report (Annex 7). Furthermore, a draft gender action plan was formulated, summarized below and detailed in Annex 7. The draft action plan will be refined through Output 2.3 and be used to mainstream gender considerations in the project implementation.

Summary findings of the gender analysis

The Government of Rwanda (GoR) has devoted tremendous efforts to promote gender equality and women's empowerment. In the regulatory front, these have comprised of mainstreaming gender considerations in the Constitution (2003); Vision 2020; the Economic Development and Poverty Reduction Strategy II (EDPRS II) currently termed as the 'National Strategy for Transformation; and the land registration policy and the inheritance law; and passing the National Gender Policy, the Law on the Prevention and Punishment of Gender Based Violence and the Agriculture Gender Strategy. In the institutional front, efforts have involved the creation of the Ministry of Gender and Family Promotion (MIGEPROF), which was set up in 1992 and strengthened after the 1994 genocide, focusing on advocacy, policy development and guidance; the Gender Monitoring Office (GMO), which was established by the national constitution in 2003 and started its operations in 2008 with the mandate to monitor and enforce the compliance of gender related commitments in all sectors of the country; the National Gender Cluster, which fosters gender mainstreaming in all Government and Non-Government institutions, including the private sector, through gender focal points¹⁰⁸; the National Women's Council, a social forum where girls and women pool their ideas in order to solve their own problems and participate in the development of the

¹⁰⁸ This mechanism is chaired by the Ministry of Gender and Family Promotion with a co-chair of international organisations on term basis. To ensure tangible results the mechanism, formally the Department of Planning of each institution has to designate a gender focal point in charge of gender mainstreaming and reporting

country that was established in 1996; and the Forum of Rwandan Women Parliamentarians, which was established in 1996 as a consultative mechanism for facilitating gender integration within the Parliament.

These efforts have resulted in some progress. The percentage of women under the poverty line decreased from 58.9 percent in 2000/2001 to 34.8 percent in 2016/2017. In the same period, 17.8 percent of female headed households were in extreme poverty while only 15 percent of male headed households were in extreme poverty. However, women headed households are also still disproportionally affected by poverty. In addition to the women headed households, there are households that are temporarily headed by women in the absence of men. The de facto women headed households are characterised by the absence of male heads for more than 6 months in the previous 12 months prior to the survey. These households are seemingly poorer (41.3%) than permanent male and women headed households. For example, in 2016/17 20.8 percent of de facto women headed households were extremely poor while 17.8 percent of permanent female headed households were extremely poor. Although there is progress on women representation in decision making at the national level, at grassroots level women continue to be underrepresented in decision-making and their voices often remain unheard. Moreover, women are also disproportionately vulnerable to many development challenges. As far as climate change is concerned, women have fewer resources to adapt, while being more dependent on diminishing natural resources for their survival¹⁰⁹.

In Rwanda, the land registration policy and the inheritance law favour equal access to and ownership of land. According to the Integrated Household Living Conditions Survey Reports¹¹⁰, in 2013/3014 women had significant access to land in the country; where 54 percent of land was owned by spouses, 26 percent by women only and 18 percent by men only (2 percent by others). In the Mayaga, the District Development Strategies (DDSs) of the target districts stipulate that all 'people' (women and men) have a right to access resources. The gender assessment found that the mentioned policy and law are known in Mayaga, and they are followed to a great extent. Indeed, women in Mayaga claimed to have the same access to legal aid through justice bureaus, hence less guarantee to claim equal ownership of family land in the case of disputes.

Under forestry, the baseline assessment shows that men and women tend to have distinct relationships with trees and forests in Mayaga. Men tend to consider forests as a source of income from timber and building materials, such as poles, fruit and honey harvesting, grazing livestock, hunting birds and small animals, and burning charcoal. In contrast, women associate forests with collecting fuel wood, fruits, wild vegetables and mushrooms, farming food (sweet potatoes, cassava and beans) and obtaining handcraft materials. Table 1 of Annex 7 provides further details on gender differentiated use of forest products. In this context, both wife and husband typically make decisions about tree planting and management. Nevertheless, they are not typically included in broader discussions. Women who participated in the Focus Group Discussion of the PPG indicated that it was the first time they participated in a forestry related meeting apart from communal Umuganda on 'tree' planting day. Furthermore, women are usually excluded from making decisions on tree harvesting. Indeed, women are socially forbidden from cutting trees. Even female-headed households have to hire males to cut their trees. They are however permitted to collect small branches for firewood when husbands cut trees.

In terms of commercial production, both women and men seem to work in nursery bed preparation, seed sorting, tree weeding and transplanting, and forest protection and conservation. However, women tend to work at a lower level of the value chain and earn less. While women tend to do transplanting, sorting and rudimentary irrigation of trees and nursery beds, their male counterparts tend to do tree grafting, caring, research and fertilizer/manure lifting and application, which have good remuneration. Collection of wood

¹¹⁰ National Institute of Statistics of Rwanda, 2014: Integrated Household Living Conditions Survey.

¹⁰⁹ International Union for Conservation of Nature and Natural Resources (IUCN) (2017). Gender-responsive restoration guidelines: A closer look at gender in the Restoration Opportunities Assessment Methodology. Gland, Switzerland: IUCN

http://www.statistics.gov.rw/datasource/integrated-household-living-conditions-survey-4-eicv-4

fuel is normally the responsibility of women and children, which takes three to five hours daily, reducing their opportunities for productive activities and economic empowerment and education, respectively. Women are however in charge of fruit trees, which can be mixed with crops.

On agriculture, women are more involved in agriculture than men (79.1% of women work in this sector versus 54.4% of men). The gender assessment found that this is also the case in Mayaga, where men largely take off-farm employment opportunities, many in the relatively nearby Kigali. This is reflected in the male to female ratio of the total population, which is 48 to 52¹¹¹. Women's mobility tends to be lower as they are typically held up by reproductive, productive and community roles that are done on farm. Women tend to be free to cultivate crops for household consumption and tend to agree with their husbands on how much to use for self-consumption and how much to sell. However, decisions regarding where and how to sell and what to do with the revenues remain mostly in the hands of men.

On access to financial services, the unequal control over land was also found regarding the possibility of using land for getting loans. While women typically accept signing to put household land as a guarantee to access loans from financial institutions when asked by men, men usually reject this no matter how profitable the business idea can be when asked by women. To some extent this explains why women's access to formal loans is lower than that of men's in Rwanda (63% versus 74% in 2016)¹¹². Femaleheaded households have full control over land and hence more flexibility in using it as collateral.

On division of labour, while women work both inside and outside the home, men work almost exclusively outside the home. Women's responsibilities include housekeeping, cooking and fetching water and wood. Men have primary responsibility for activities considered to have commercial value including off farm employment, harvesting, maintaining equipment, hunting and gathering.

Gender Action Plan

The Gender Action Plan (GAP) was formulated in response to the outcomes (opportunities and barriers) derived from consultations with concerned stakeholders and desk reviews, as presented above in the Gender Analysis. The GAP will guide project implementation (on which the gender action plan proposed under output 2.3 will build) to ensure that:

- there are equal opportunities for men, women and youth to project benefits;
- active consultation with and participation of women and underrepresented groups;
- collection of gender disaggregated data/information; and
- There is higher representation of women and underrepresented groups in decision-making bodies.

The GAP identifies the following targets for gender:

- Component 1: At least 35% of decision makers from Government Organizations are from the underrepresented group (women or men) and at least 40% of decision makers from the target communities are from the underrepresented group (women, men and/or youth).
- Component 2: i) At least 35% of technical officers receiving training on FLR related issues are from the underrepresented group (women or men); ii). At the community level, at least 40% of those trained on FLR and other project issues are from the underrepresented group (women or men).

¹¹¹ Socioeconomics assessment Baseline Report of the PPG. Annex 11.

¹¹² Republic of Rwanda; Gender Monitoring Office (2017): Annual Report 2016/2017.

• Component 3: To the extent possible, all gender groups offered opportunities to participate in the participatory forest management arrangements, SLM/SFM and household energy initiatives, including sustainable charcoaling. In addition, at least least 50% of the underrepresented groups (women, men, and/or youth) are actively participating in the PFM and benefitting from the NTFP component; at least 50% of the underrepresented groups (women, men, and/or youth) are actively participating (receiving cows for terraces); at least 50% of the underrepresented groups (women, men, and/or youth) are actively participating in the contract farming of trees (plantations); at least 50% of the receipients of the cookstoves are from the underrepresented groups (women, men, and/or youth); at least 30% of the sustainable charcoaling beneficiaries are from the underrepresented groups (women, men, and/or youth).

Project Outcomes	Project Outputs	Measures to mainstream gender
Forest restoration plans with institutional and legislation frameworks guiding afforestation, natural resources management and agriculture, covering 263,270 ha in 4 districts:	Output 1.1: Legislation and coordination mechanism in place for effective FLR Output 1.2: Four FLR plans ready for implementation, covering 263,270 ha	Participatory FLR planning will ensure that all gender groups are represented in the coordination mechanism and are consulted and participate effectively in the planning. The M&E system will be used to track gender disaggregated data on indicators.
Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge management	Output 2.1: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percentage points for all stakeholder groups Output 2.2: Institutional capacity for the extension service and community knowledge sharing forums increased by 25 percentage points on the UNDP Capacity Assessment for all stakeholder groups Output 2.3: M&E plans, KM and gender mainstreaming strategy in place	Careful targeting of training programs will ensure that all relevant gender groups receive training and other capacity support. A gender mainstreaming strategy will identify relevant areas for action and provide guidance on implementation, to ensure that all gender groups participate and benefits of the project are shared equitably across gender groups. Training on gender issues and their importance to achieving and sustaining project results and impacts will be provided to all relevant technical groups and communities.
Implementation of FLR plans secures 555 ha of natural forests, puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the	Output 3.1: Management enhanced for 555 ha of high conservation value forest and gazettement of 354 ha of it as PA; Output 3.2: Buffer zones and hill- tops afforested with a mix of	A gender mainstreaming strategy will identify relevant areas for action and provide guidance on implementation, to ensure that all gender groups participate and benefits of the project are shared equitably across gender groups.

The table below explains how these targets will be achieved.

New Forest Company through co-finance, increases productivity of agriculture and plantation forests on 25,000 ha and reduces wood consumption by at least 25%	productivity plantations	The PMU will ensure that all gender groups are provided equal opportunities to participate in all project activities; special effort will be made to reach women farmers to join the Farmer Field Schools, to participate in the NTFPs under the participatory forest management of buffer zones, in taking up the cows for terraces and tree crops under SLM and adopting improved cookstoves. The M&E system will track gender disaggregated data for all the indicators for the above.
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3.5.1 SOUTH-SOUTH AND TRIANGULAR COOPERATION (SSTRC):

SEAMAUL Udong Initiative, a partnership of South Korea and UNDP: The Saemaul Udong initiative, or the New Village Movement, is credited as part of the drivers of the rapid economic development achieved by South Korea in a relatively short period. The SMU was a Government-led Korean rural development model which was conceived and carried out in the 1970s by Park Chung-Hee, for eighteen years (1961 - 1979) to improve rural living conditions and the overall economic situation. The model is well known for its bottom-up participatory approach, competition between villages by incentive and the spirit and attitude behind the movement: diligence, hardworking and self-help. UNDP, in partnership with South Korea is supporting the implementation of the model in six countries across three continents, in Bolivia, Lao PDR, Myanmar, Rwanda, Uganda and Viet Nam, where it is blending Saemaul principles with community grown development experiences. The initiative aims to update, integrate and scale up proven successful elements of the Korean model and its application into exemplary systematic approach and effective platforms for development cooperation, to: (1) identify proven approaches and policy options for inclusive and sustainable local development, drawing on the expertise of Saemaul and other relevant solutions from development partners, including those from the South; (2) achieve impact of the integrated local development approaches known as Inclusive and Sustainable New Communities at both the local and national policy levels through its application to an initial set of countries; and (3) facilitate South-South and Triangular cooperation and knowledge exchange through support to centres of excellence to disseminate evidence-based results and experiences from the initial applications, with the aim of achieving impact at the regional and global levels.

In Rwanda, the model is being tested in Kamonyi and Gisagara where it is facilitating local development targeting women's empowerment. The initiative facilitates commercialization of small scale fruit farming, using performance contracts at family level, with extension and marketing support services. They have constructed local markets, especially in Kamonyi district, enabling small scale farmers to access markets for fruits and vegetables. Overall, the initiative aims to demonstrate how various development cooperation modalities can work together, oversee development assistance, domestic resource mobilization, and South-South and Triangular cooperation can effectively complement each other in one development initiative. The proposed project will coordinate with the Saemaul Udong initiative in the implementation of component 3, in particular Outputs 3.2 and 3.3 - Buffer zones and hill-tops afforested with a mix of indigenous trees and higher productivity plantations; and, SLM/SFM practices implemented in > 25,000 ha of agriculture land.

FLR Investment Forum (FLIF) and the African Forest Landscape Restoration Initiative (AFR 100): The Forest and Landscape Investment Forum (FLIF) offer a unique platform for exploring the variety of investment opportunities leading to environmental, social, economic and financial returns. The FLIF is facilitated under the umbrella of the Bonn Challenge and the African Forest Landscape

Restoration Initiative AFR100. AFR100 seeks to enable the restoration of 100 million hectares of land by 2030. This Forest Landscape Restoration Initiative contributes to the African Resilient Landscapes Initiative (ARLI), which is a political instrument endorsed by the Specialized Technical Committee of the African Union in Agriculture, Rural Development, Water and Environment in October 2015. The aim of the forum is therefore to boost the investments needed to achieve all the ambitious restoration goals. This will allow participants both to learn from others' experiences and technical expertise and to reinforce partnerships towards increased engagements in forest and landscape restoration.

The lead partners hosted a first meeting of the Forum in Kigali Rwanda in November 2017¹¹³, hosted by FAO, NEPAD, IUCN and the Government of Rwanda. Participants included project developers and business champions from Eastern Africa and investors from all over the world seeking business opportunities in sustainable landscapes; Companies investing in Forest and Landscape Restoration (FLR) and project developers; National and international cooperatives and agribusinesses; National and international commercial banks, development banks, impact funds, insurance companies; Technical assistance providers that facilitate and support investment in sustainable land use business models such as incubators, accelerators, PPP facilities; and, Public agencies and institutions able to build an enabling environment for investment. The participants proposed the formation of a regional or sub-regional level network anchored within existing initiatives and aimed at catalyzing investments and supporting the development of projects that are "ready for investments", and which would build on synergies across partners to increase investments in forest and landscape value chains. The specific contribution of the Forest and Landscape Investment Platform would be: Helping forest & landscape actors reach out beyond traditional sources of investment / finance (national and regional advocacy); Mainstreaming FLR into investment flows (development banks, public financing schemes, FDI, etc.); Supporting the development of landscapes projects "ready for investments"/good quality bankable projects; Improving matching / connection between restoration projects/promotors and relevant financing institutions and investors, including through financing and investment partnerships.

The proposed project will monitor the development of this Forum and collaborate closely with the investment opportunities offered by the business sector, through the Forum. It will also collaborate on the knowledge sharing, under Output 2.3. It is assumed that the proposed network can be formed and operationalized within appropriate timelines and that investors are mobilized in time for the project groups to benefit from the financing opportunities mobilized by the network.

4 PROJECT MANAGEMENT

4.1 COST EFFECTIVENESS

The project uses several innovative routes to ensure that the relevant systems are emplaced and provide the mechanisms for the most cost effective means of attaining results, sustaining, and scaling up the project results and impacts. The first one is creating the mechanism to allow all relevant stakeholders in the four districts to dialogue on their expectations of the natural resources and ecosystems services they need to advance their individual goals on addressing poverty, conserving biodiversity, advancing economic activities to create wealth and securing livelihoods (meeting food and energy needs). The second is empowering that mechanism to coordinate the stakeholders to develop a master plan for restoration of their degraded forest ecosystems and specific plans for implementing priority issues of the master plan; the third is providing targeted support for the implementation of the specific restoration plans, including increasing tree cover via afforestation, improving uptake of efficient cook stoves to

¹¹³ http://www.fao.org/fileadmin/user_upload/forest-landscape-restoration/docs/REPORT_FLIF_15092017.pdf

reduce the demand for fuel wood, increasing agricultural productivity via the uptake of sustainable land and forest management practices, and promoting biodiversity conservation via upgrading the conservation status of 555 ha of natural forests.

Although according to IUCN restoration decision-making should not be based on the Total Economic Value of a landscape, but rather on restoration's ability to change that value¹¹⁴, it still remains important to compute the total economic value in such analyses. This data will be collected during the FLR planning stage, based on clear assessment of the potential changes to economic values of production systems, and putting a monetary value on the changes/impacts (steps of the cost benefit analysis in Box 2). The expected costs include opportunity cost of use of the resources, transaction and FLR implementation costs. Benefits will be expected from the positive impacts of FLR on the provisioning and regulating ecosystem services accruing to the local communities, including private landowners and the global community. They include increase in timber production. These benefits are not yet quantified. For example, the conservation value of the 555 ha of natural forests has not been assessed, although an estimate could be obtained using figures from a study carried out on the Nyungwe watershed by Masozera¹¹⁵, which placed a total economic value of US\$ 2,515 per ha per year (including watershed protection, biodiversity protection, and carbon sequestration – excluding tourism and recreation).

Extrapolating the method used for Nyungwe watershed to Kibirizi-Muyira and Busaga forests, and assuming only 75% of the value of the Nyungwe watershed, this gives an annual conservation value of over 1 million USD per year, a total of USD 20 million in twenty years. It is assumed that the total economic value would diminish at a rate of 6 percent per annum in the absence of the increased protection the park affords¹¹⁶. It is however difficult to estimate the opportunity cost of preserving the future Kibirizi-Muyira and Busaga National Parks, hence the net value of conservation. Lost economic opportunities in local communities owing to protected area surveillance include revenues associated with illegal mining, wood harvesting, and non-timber forest product (NTFP) collection, and theoretical conversion to agriculture or other income-generating functions. No figures are available to estimate the value of the ongoing illicit activities due to their informal and clandestine nature. In addition, conversion of forest into agricultural land implies lost ecosystem services, whose tradeoffs are difficult to calculate without an indepth analysis of the agricultural potential of the land in question.

However, the project will lead to agricultural productivity gains from improved SLM measures, which are not yet quantified: It is assumed that the livelihoods and SLM interventions offered to communities will compensate any potential losses incurred by reduced access and control of harvesting forest products from the natural forests. Indeed, it is possible that the net gains outweigh the losses. Improvements in plantation and woodlot management, combined with improved cookstoves are also expected to provide economic returns to participating households. In addition, reduced negative externalities from silt-laden runoff of fields as a result of SLM and SFM practices cannot be quantified at this stage, due to lack of data. Although the value of this benefit cannot be quantified, it will, among others, reduce the cost of water treatment and power generation for the watersheds to which the Akanyaru River contributes, and increase the quality of untreated water for water users. Lower in-stream sediment loads also reduce the risk of flooding.

¹¹⁴ Verdone, M. (2015). A Cost-Benefit Framework for Analyzing Forest Landscape Restoration Decisions. Gland, Switzerland: IUCN. https://portals.iucn.org/library/sites/library/files/documents/2015-018.pdf

¹¹⁵ Masozre, M. 2008: VALUING AND CAPTURING THE BENEFITS OF ECOSYSTEM SERVICES OF NYUNGWE WATERSHED, SW RWANDA. A report for the USAID-funded Destination Nyungwe Project (DNP) and the GEF-funded UNDP Protected Areas Biodiversity Project

¹¹⁶ Masozre, M. 2008: VALUING AND CAPTURING THE BENEFITS OF ECOSYSTEM SERVICES OF NYUNGWE WATERSHED, SW RWANDA. A report for the USAID-funded Destination Nyungwe Project (DNP) and the GEF-funded UNDP Protected Areas Biodiversity Project

Increased carbon sequestration from SLM measures and agroforestry are however quantifiable. The FLR approach will increase tree density on the landscape, while protecting existing forests. Using the estimated carbon sequestration potential of the project over the course of 20 years, as calculated using EX-ACT (see Annex 7), and a hypothetical carbon price of \$5/tCO_{2e}, the value of carbon sequestration is over ten million dollars. Although these benefits will not be monetized on the carbon market, they accrue as positive externalities to the global community. Locally, there will be reduced costs of tackling natural disasters, due to improved ecosystems services, which provide a less costly means of disaster risk reduction. Although the lack of data on the above values make it impossible to calculate an economic rate return of the GEF and co-finance investment, a conclusion can be drawn using the estimated economic rate of return (ERR) for the World Bank GEF LAFREC project on FLR of the Gishwati Watershed, which found an ERR of 35 percent, over a twenty year period, using a discount rate of 7 percent. The two projects address very similar issues with similar results, except the promotion of tourism in the Gishwati National Parks. Given the low probability of international tourism in the Kibirizi-Muyira and Busaga National Parks, it is reasonable to assume that an ERR of about 10 to 20 percent is possible for the proposed project, over the next 20 years.

Project management: - see Governance and Project Management Arrangements in Section 8.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy¹¹⁷ and the GEF policy on public involvement¹¹⁸.

¹¹⁷ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

¹¹⁸ See https://www.thegef.org/gef/policies_guidelines

5 STRATEGIC RESULTS FRAMEWOK

This project will contribute to the following Sustainable Development Goals: SDG 15 - Life on land; SDG 1- No poverty; SDG 2 - Zero hunger; SDG 7: Clean and affordable energy

This project will contribute to the following country outcome included in the UNDAP/Country Programme Document: Outcome 4: By 2023 Rwandan institutions and communities are more equitably, productively and sustainably managing natural resources and addressing climate change

Country Programme Document Output 2.2. Public institutions, civil society and private sector have improved technical capacities to rehabilitate and restore fragile ecosystems

Indicator 2.2.1 Number of hectares of fragile ecosystem restored and rehabilitated Baseline (2016): 10,000 Target: 20,000

This project will be linked to the following output of the UNDP Strategic Plan:

Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste (2014-2017:

Output 2.4.1 Gender-responsive legal and regulatory frameworks, policies and institutions strengthened, and solutions adopted, to address conservation, sustainable use and equitable benefit sharing of natural resources¹¹⁹, in line with international conventions and national legislation;

	Objective and Outcome Indicators (no more than a total of 15 -16 indicators)	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
Project Objective: To secure biodiversity and carbon benefits while simultaneously strengthening the resilience of livelihoods, through forest landscape restoration and upscaling clean technologies in selected Districts of Southern Province	Indicator 1: Number of new gender-responsive legal, regulatory and institutional frameworks in place in the four districts for the conservation of forests and biodiversity (via FLR)	No FLR coordination mechanism in any of the four districts; by law, only forest exceeding 2 ha need a permit to cut trees ¹²⁰ ; national laws on forests not well understood by local communities because none available in local languages;	4 FLR coordination committees established under the JADF; area of land requiring a permit to cut trees reduces to 1.5 ha;	4 FLR coordination committees established under the JADF fully functional and exit strategy has secured funds for sustainability of at least four more years.	 Project monitoring reports; JADF FLR Thematic Group reports; exit strategy with evidence of funds mobilized. Monitoring information for project reports will be undertaken via sample surveys and observations. Information for the PIR (main reporting mechanism for reporting on these indicators) will be via review of project reports and direct observations. Assumptions: a. No unusual climate events (droughts or floods) occur in the duration of the project
	<u>Mandatory indicator 2:</u> Number of people benefitting financially from FLR initiatives (fruit/tree cropping and one cow per family initiative, improved cookstoves) ¹²¹ : - GEF Core Indicator 11	Various to be established during year one and reported in the first PIR (number of farmers engaged in plantation farming under contract; number participating in FFS, number engaged in consolidated tree crop farming as cash crops, number benefiting from one cow per family and number using improved	179,050 additional - At least 50 tree famers under contract; at least 25,000 participating in FFS, 1,000 engaged in consolidated tree crop farming as cash crops, 3,000 benefiting from one cow per family and 150,000 ¹²² using improved cookstoves	362,144 additional - At least 100 tree famers under contract; at least 50,000 participating in FFS, 5,000 engaged in consolidated tree crop farming as cash crops, 10,000	 (or not in the initial years when the measures being implemented by the project, which would mitigate the negative impacts of unusual climate events, have taken hold; b. No political unrest or sudden changes in inflation and value of the currency c. In addition to all the assumptions for all the outcomes in the cells below, it is assumed that the Government and other stakeholders will continue to provide the required

¹¹⁹ Includes oceans and marine and freshwater ecosystems, forests, biodiversity and ecosystems, land rights, and management of chemicals and waste.

¹²⁰ This is not appropriate because a very limited number of private owned forest reach that size. Consequently, deforestation is accelerated due to large share of private owned forests in the national forest cover statistics.

¹²¹ This indicator needs to be refined during the inception period and reported in the first PIR. The total population of the four Districts is 1,293,373 people. It is assumed the project benefits will reach at least 28 percent of this population; the gender ratio is (on average) 48.3 male to 51.7 female. These statistics are in Table 1 of the Prodoc

¹²² About 30,000 cookstoves distributed (average size of household is 5 to 6 individuals)

financial and technical resources (which will be quantified in the project exit strategy formulated in the 4th year of implementation) to continue with the inclusive implementation and monitoring of the FLR plans/strategies. This is particularly important because trees take a long time to become forests		Project monitoring reports; JADF FLR Thematic Group reports; exit strategy with evidence of funds mobilized. Monitoring information for project reports will be undertaken via sample	surveys and observations. Information for the PIR (main reporting mechanism for reporting on these indicators) will be via review of project reports and direct observations. Assumptions:		b. Inter-sectoral, multi-stakeholder institutional framework for FLR will have appropriate staff and funding from the Government to ensure its effective functioning post the project, thus institutional failure will not threaten the sustainability of the project results. This is important because forest recovery takes longer than the duration of the six year project;	c. That funding will be available to bona-fide, reputable NGOs, and communities. FLR is not the sole work of the Government, though they are key;	d. Project resources are adequately supported by co-finance, and together they will be adequate to shift the barriers to collaboration
benefiting from one cow per family and 300,000 using 60,000 improved cookstoves (48.3:51.7 male to female ratio on gender for all numbers)	At least 4,700,825 tCO2e ¹²³	4, covering at least 263,270 ha;	Addendum clarifying SFM and FLR definition part of the National Forest Policy (2018).				2. Sheeping
(48.3:51.7 male to female ratio on gender for all numbers)	At least 2,060,000 tCO2e	2, covering at least 96,000 ha;	Recommendations for policy amendment to clarify SFM and FLR definitions available in an addendum to the National Forest Policy				
cookstoves;	To be determined in Year one, reported in the first PIR	0 ¹²⁴	SFM and FLR definitions clear at international level, not clear in the National Forest Policy				
· .	Mandatory indicator 3: Tons of carbon mitigated - GEF Core Indicator 6	Indicator 4: Number of FLR plans guiding restoration at landscape level	Indicator 5: Definitions of SFM and FLR clarified in the National Forest Policy (2018)				
		Forest restoration plans with institutional and legislation	frameworks guiding afforestation, natural resources management and agriculture, covering 263,270 ha in 4	5			

¹²³ Comprising 4,340,825 tons from LULUCF and 360,000 tons from improved cookstoves ¹²⁴ The District Forest Management Plan does not comprehensively deal with an FLR approach; the District Land-use master plan is drawn at national level and does not deal with FLR

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 and inter-sectoral coordination to allow mainstreaming of FLR into economic and other relevant sectors; e. The current levels of support from authorities and other stakeholders for a FLR is increased. Risks: a. Short term economic and livelihood considerations may take precedence over long term gains from landscape restoration; b. Policy and by-laws review and approval may take very long despite the project being effectively implemented (subject to bureaucratic processes beyond the control of the project). 	Project monitoring reports, including updated capacity score cards; Project technical reports (from the KM implementation), JADF FLR Thematic Group reports. Monitoring information for project reports will be undertaken via sample surveys and observations. Information for the PIR (main reporting mechanism for reporting on these indicators) will be via review of project reports and direct observations.	 Assumptions: Assumptions: a. Capacity building programs can overcome the effects of high staff turn-over and frequent re-arrangement of the institutions of natural resources management (transfer of departments, merging and creation of new Ministries); b. Mobilization of project start up is quick and efficient, so that implementation starts 	within three months of approval (otherwise the project will miss the mid-term milestones); c. All stakeholders embrace the concept of information sharing and learning willingly and enthusiastically. Risks: it might be difficult to mobile additional resources (funds) for sustaining the FLR plans implementation, yet this is really important because the global environmental benefits as
	Aggregated score at least 57, increase can be attributed to the areas specific to the project	All project results and lessons learned shared through website with one news article per month – at least one/year on gender issues; at least 15 completed technical reports available online;	The project exit strategy completed and initial fundraising mobilize enough funds for at least 4 additional years of FLR plans implementation
	Aggregated score at least 45, increase can be attributed to the areas specific to the project	Initial project results and lessons learned shared through website (one news article per month – at least one/year on gender issues; at least 5 completed technical reports available online);	The project exit strategy completed and initial fundraising mobilize up to a million USD
	Aggregated score is 36.5 (systemic - 41.67; institutional - 31.25; individual - 36.46)(Annex 2, Capacity Scores)	Project yet to start	None – project yet to start
	Indicator 6: Aggregated Capacity Score using UNDP Capacity Scoring system for MoE, Rwanda Water and Forestry Authority; MINAGRI; Agriculture and NRM departments of Gisagara, Nyanza, Ruhango and Kamonyi districts.	Indicator 7: Number of key project lessons and strategies for FLR, SLM/SFM, land consolidation and clean household and institutional energy documented, disseminated and adopted at local and national levels	Indicator 8: Funding mobilized for sustaining implementation of FLR plans post project
	Component/ Outcome 2 Individual and institutional capacities enhancement for planning and implementing gender sensitive forest	landscape restoration strategies supported by knowledge management 3 indicators maximum	

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well as economics benefits of FLR mature in 10 - 20 years while the project is only 6 years. This is why the project needs to complete the exit strategy by year 4 at the latest, to improve chances of mobilizing adequate sustainability funding.	Project monitoring reports, including PA Nomination files, community co-management agreements, and updates of the conservation status of selected biodiversity indicators, SLM/SFM reports, household and institutional energy/cookstoves adoption reports, project technical reports (from the KM implementation), JADF FLR Thematic Group reports. Monitoring information for project reports will be undertaken via sample surveys and observations. Information for the PIR (main reporting mechanism for reporting on these indicators) will be via review of project reports and direct observations. Assumptions: a. The gazettement of the forest is not delayed a. The gazettement of the forest is not delayed
	Restoration of the 555 ha of natural forest advanced: Nomination file for the 354 ha Forest Reserve submitted to Cabinet upgrading it to PA IUCN Category IV status, with business management plans (354 ha); At least 10 Participatory Forest Management agreements completed and under implementation
	Restoration of the 555 ha of natural forest started: Nomination file for the 354 ha Forest Reserve completed upgrading it to PA IUCN Category IV status, with business management plans (354 ha); At least 5 Participatory Forest Management agreements completed and under implementation
	354 ha of the 555 ha forest is currently Forest Reserve; there are no Participatory Forest Management agreements and levels of degradation of the whole 555 ha forest are high (to be confirmed during inception)
	Indicator 9: Area of High Conservation Value forest loss avoided - GEF Core Indicator 4.1
	Component/ Outcome 3 Implementation of FLR plans secures 555 ha of natural forests, puts 300 ha of forests under participatory forest management, establishes 1,000 ha of plantations under the New Forest Company through co- finance, increases productivity of agriculture and plantation forests on 25,000 ha and

					by bureaucratic procedures;
least 25%					h The minfoll mattern holds (no danisht
					surged to improved nusbandry practices; ii) change in productivity for crops is influenced
				14 1 2	only by adoption of improved SLM and SFM practices;
					 The New Forest Company has room for new tree farmers;
					 d. Land will be available and famers willing to adopt tree farming and land consolidation for
					c. Markets for fruits and other NTFPS Will be f Messages on improved energy technologies
		-			
					inefficient methods and technologies.
					deeply ingrained in many local cultures that
					they prefer to stick with it even when other
		Table 7 gives basic statistics of	Additional 10,800	Additional 26,300	options are available and affordable.
	landscapes under sustainable land management in production	land under soil conservation and irrioation while 7 chus 2 chows	(10,000 ha under FFS, 500 ha of ploutations	(25,000 ha under STAVEES 1 000	-
<u> </u>	systems - GEF Core Indicator	land under plantation. However.	100 ha hillton forests	2	Kisks:
4	4.3	these statistics are not specific to	replanted with	300 ha hilltop	a) Slow bureaucratic processes for the approval
		2	ls s	s	of the ray, take comparing a finalizing co-management agreements
		project with undertake. These statistics will be refined in year 1	cleared of Lantana camara At least 200 ha	with indigenous	with communities;
		and reported in the first PIR.	put under new or	of Lan	b) Profitable markets for agroforestry based
			rehabilitated terraces	camara, 1,000 ha	fruit products, other NTFPs and sustainably produced charcoal may be difficult to access:
			increase in average	with commercial	c) Private sector enpagement in promoting
			ts)	tree crops, at least 500 ha mit under	markets for the NTFPs, f
				new or	d. Lantana camara is very difficult to
				rehabilitated	control/eradicate. It may be a challenge
				least 25% increase	finding a cost-effective way of reducing its
	-			in average crop	populations sustainably in the FA and Duller Zones;
				ytetus)	e. There may not be enough cooperatives with
					aucquate basening capacities to be engaged in the cookstoves distribution and marketing of
20					f. There is a risk of households accepting
					additional cows and reneging on their

ces post lill be done via vorks, but ed by individual mance of tutions) despite al emission					76 P a g e
agreements to maintain terraces post construction (construction will be done via VUP – payments for public works, but maintenance must be provided by individual households). There is a risk of poor maintenance of cookstoves (households/institutions) despite training, reducing the potential emission reductions.					
agree cons vUP main hous g. Ther train redu					
				•	
				·	

6 MONITORING AND EVALUATION (M&E) PLAN

The results outlined in the strategic results framework will be monitored annually and evaluated periodically to ensure that the project effectively achieves the desired results. Monitoring will be supported by Output 2.3 of Outcome 2: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the <u>UNDP POPP</u> and <u>UNDP Evaluation Policy</u>. The UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the <u>GEF M&E policy</u> and other relevant GEF policies¹²⁵.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the indicator matrices (that replace the GEF Tracking Tools) for all GEF-financed projects in the country, including projects supported by other GEF Agencies.¹²⁶

M&E Oversight and monitoring responsibilities:

Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Project Manager will develop annual work plans based on the multi-year work plan included in Annex 1, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. ESMP, gender action plan, stakeholder engagement plan etc.) occur on a regular basis.

<u>Project Board</u>: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

¹²⁵ See <u>https://www.thegef.org/gef/policies_guidelines</u>

¹²⁶ See <u>https://www.thegef.org/gef/gef_agencies</u>

<u>Project Implementing Partner</u>: As the Implementing Partner, REMA is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

<u>UNDP Country Office</u>: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the <u>UNDP POPP</u>. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) will be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

<u>UNDP-GEF Unit</u>: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.¹²⁷

Additional GEF monitoring and reporting requirements:

<u>Inception Workshop and Report</u>: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

- a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;

¹²⁷ See guidance here: <u>https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx</u>

- e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; SESP, Environmental and Social Management Plan and other safeguard requirements; project grievance mechanisms; the gender strategy; the knowledge management strategy, and other relevant strategies;
- f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Sector Specialist and will be approved by the Project Board.

<u>GEF Project Implementation Report (PIR)</u>: The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

<u>GEF Focal Area Tracking Tools</u>: The following GEF Tracking Tools will be used to monitor global environmental benefits: SFM Tracking Tool, Land Degradation Tracking Tool and the Climate Change Mitigation Tracking Tool. The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted as Annex to this project document – will be updated by the Project Manager/Team (not the evaluation consultants hired to undertake the *MTR* or the TE) and shared with *the mid-term review consultants* and terminal evaluation consultants before the required *review*/evaluation missions take place. The updated GEF Tracking Tools will be submitted to the GEF along with the completed *Mid-term Review report* and Terminal Evaluation report.

Independent Mid-term Review (MTR): An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the <u>UNDP</u> <u>Evaluation Resource Center (ERC)</u>. As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted

during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Specialist and approved by the Project Board.

<u>Terminal Evaluation (TE)</u>: An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the <u>UNDP Evaluation Resource Center</u>. As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Sector Specialist and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

<u>Final Report</u>: The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

GEF M&E requirements	Primary responsibility		ts to be charged to Budget ¹²⁸ (USS)	Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	12,000	40000	Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Risk management	Project Manager Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Manager	24,000	64,000	Annually before PIR
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit	UNDP Country Office	21,000	48,000	Annually or other

Table 13: Mandatory GEF M&E Requirements and M&E Budget

¹²⁸ Excluding project team staff time and UNDP staff time and travel expenses.

GEF M&E requirements	Primary responsibility	Indicative cos the Project	ts to be charged to Budget ¹²⁸ (USS)	Time frame	
		GEF grant	Co-financing		
policies				frequency as per UNDP Audit policies	
Lessons learned and knowledge generation	Project Manager	30,000	100,000	Annually	
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP Country Office	40,000	150,000	On-going	
Stakeholder Engagement Plan	Project Manager UNDP Country Office	20,000	60,000	On-going	
Gender Action Plan	Project Manager UNDP Country Office UNDP GEF team	15,000	45,000	On-going	
Addressing environmental and social grievances	Project Manager UNDP Country Office	40,000	180,000	On-going	
Project Board meetings	Project Board UNDP Country Office Project Manager	40,000	180,000	At minimum annually	
Supervision missions	UNDP Country Office	None ¹²⁹	20,000	Annually	
Oversight missions	UNDP-GEF team	None ¹²⁹	20,000	Troubleshooting as needed	
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	10,000	To be determined.	
Mid-term GEF Tracking Tool to be updated by PMU	Project Manager	2,000	5,000	Before mid-term review mission takes place.	
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	30,000	60,000	Between 2 nd and 3 rd PIR.	
Terminal GEF Tracking Tool to be updated by PMU	Project Manager	2,000	5,000	Before terminal evaluation mission takes place	
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	40,000	100,000	At least three months before operational closure	
TOTAL indicative COST Excluding project team staff time, and UN expenses	IDP staff and travel	316,000 ¹³⁰	1,087,000		

7 GOVERNANCE AND MANAGEMENT ARRANGEMENTS

<u>Roles and responsibilities of the project's governance mechanism</u>: The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of *Rwanda*, and the Country Programme. The **Implementing Partner** for this project is the Rwanda Environment Management Authority. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

 ¹²⁹ The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.
 ¹³⁰ 5 percent of GEF Grant of 6,213,538

- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.



Figure 4: Project organization structure

Project Board: The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager. Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and

• Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board will include the following roles:

<u>Executive</u>: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. The Executive is the Director General of REMA. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and suppler. Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organise and chair Project Board meetings.

<u>Senior Supplier</u>: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Suppler is UNDP. Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

<u>Senior Beneficiary</u>: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiaries are the Local Governments of the four districts (Gisagara, Ruhango, Nyanza, and Kamonyi. They will be responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. Specific Responsibilities (as part of the above responsibilities for the Project Board):

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;

- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

Project Manager: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. S/he will be responsible for day-to-day management and decision-making for the project, to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. S/he will be appointed by the Implementing Partner. The PM will be different from the Implementing Partner's representative in the Project Board. Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the GEF PIR and submit the final report to the Project Board;
- Based on the GEF PIR and the Project Board review, prepare the AWP for the following year.
- Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board;

The implementation of field activities will be supported by Coordinators for each of the districts, drawn from the Responsible Parties (see below) and located in respective district offices. See Annex 5 Part C for Terms of Reference for the proposed key project management positions.

A Sector Specialist will provide overall technical guidance on Forest Landscape Restoration and quality assurance for the implementation of the project's technical components. S/he will liaise with the RPs,

district coordinators and other contracted parties, as well as report to the PM and play an active strategic role in supporting the work of the JADF.

Project Assurance: UNDP provides a three – tier supervision, oversight and quality assurance role – funded by the GEF agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance role is covered by the GEF Agency.

Governance role for project Responsible Parties for Implementation: The Responsible Parties are project partners in receipt of project funds from REMA through the PMU for implementation of their assigned project activities. Thus, they are, accountable for implementing and reporting on project activities as per approved work plans and budgets (see budget notes and Annex 3). To the extent possible and relevant, the approach of the project is to decentralize implementation of the project activities and project is to the stakeholders at the district and local levels, so as to build ownership of project activities and project implementation capacity at these levels in keeping with the national policy objective to increasingly decentralize governance of development programs. Accordingly, the project is designed to be implemented by the following:

- REMA, RWFA, RAB, FONERWA
- RWFA responsible for technical support for activities within its mandate on all outputs of Outcome 1 and Output 3.2;
- REMA responsible for technical support for activities within its mandate for Outcome 2 and Ouptut 3.1;
- RAB responsibility for technical support and linkages to the Girinka programme on the distribution of cows for terraces, under Output 3.3
- FONERWA responsible for technical support for activities within its mandate for Output 3.4
- A technical institution (such as IUCN/WRI) to lead the stakeholders to produce FLR master plans, under the supervision of NAFA under Output 1.2.

The above-mentioned organizations will implement the project activities assigned to them with technical support from, or in collaboration with other agencies, depending on the nature of the activities and requisite expertise. RPs will act on the basis of written agreements or contracts with REMA to purchase goods or provide services to carry out project activities and produce outputs. All RPs are directly accountable to REMA in accordance with the terms of their agreement or contract with REMA. UNDP shall ensure that all RP engagements follow UNDP rules and regulations, policies and procedures. A stakeholder engagement plan is presented in subsection IV.iii. It outlines the participation of all project stakeholders in respect of various project outputs during project implementation.

FLR Thematic Group under the District Joint Action Development Forum (JADF): a small multidisciplinary team of scientific/technical experts from Government Agencies, implementing partners and scientific/technical organizations will be formed, primarily to coordinate a participatory FLR planning, supported by sound science to achieve integrated landscape management that encompasses biodiversity conservation, sustainable forest management, sustainable land management, climate change adaptation and community livelihoods. Secondly, it will provide technical advice to the project, ensuring that the project interventions are technically sound and in keeping with Government of Rwanda and UNDP/GEF social, environmental and other standards.

The JADF itself will provide a mechanism for consultation, sharing of knowledge and lessons learned, and coordination with other project stakeholders and related initiatives (see the Stakeholder Engagement section). The JADF will bring together a network of local and regional stakeholders that will meet to share results and experiences through conferences hosted every 2 years by REMA in collaboration with other project partners, and a communication platform in the form of an electronic network for exchanges managed by the PMU. It will regularly brief the PSC on inputs to and outputs from forum meetings, knowledge events and other events and also have observer status on the Project Board (PSC).

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications of projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies, notably the UNDP Disclosure Policy¹³¹ and the GEF policy on public involvement¹³².

<u>Project management</u>: It is proposed that both the PM and the Sector Specialistwill be based in Kigali, housed by REMA, as part of the co-financing support from the Government of Rwanda. These proposed arrangements will be reviewed and confirmed during the project inception period. The project will coordinate with other ongoing projects and initiatives, in particular the on-going RAFLEC and all those listed in the partnerships section, to ensure coordination and synergy, and exchange of lessons and experiences that will strengthen the quality of project implementation (see IV.ii – Partnerships).

¹³¹ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
 ¹³² See https://www.thegef.org/gef/policies_guidelines

8 FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is USD 32,706,903. This is financed through a GEF grant of *USD* 6,213,538, USD 1,000,000 in cash co-financing to be administered by UNDP and *USD* 25,493,365 in Government co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.

<u>Parallel co-financing</u>: The actual realization of project co-financing will be monitored during the *mid-term review* and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as described in Table 17.

Sources of Co- financing	Type of Co- financing	Amount US\$	Detail	Risks	Risk Mitigation Measures
GoR – Gisagara District		6,954,989	All outcomes; Government contribution towards salaries, facilities	Changes in annual budget allocation to	Inputs are in kind so risk and impacts are
GoR – Nyanza District		3,867,596	All outcomes - Government contribution towards salaries, facilities TWIGIREMUHINZI (Agroforestry); Government Budget (Fruits); One Acre Fund/Rwanda Tubura (Fruits)	the district/Minist ry/Authority or inadequate financing of the budget allocated	relatively low. The project is mainstreamed into the District and Ministries structures, increasing ownership and
GoR – Ruhango District	In kind	2,149,660	All outcomes - Government contribution towards salaries, facilities		ownership and reducing the risk of non- contribution of
GoR – Kamonyi District	In kind	5,959,238	All outcomes - Government contribution towards salaries, facilities		co-finance. If the risk
GoR – Ministry of Environment	In kind	1,929,625	Outcome 3 - Rehabilitation of National seeds center (which will end up by maintaining arboretum forests, building capacity of staff and partners, establishing seeds stands in Gisagara and Huye Districts).	r	manifests, the PSC will seek additional co- financing from other sources to the extent possible.
GoR – Rwanda Water and Forestry Authority	In kind	1,097,967	All outcomes - Government contribution towards salaries, facilities		
GoR – Rwanda Environment Management Authority	In kind/ Grant	2,060,155	All outcomes - Nordic Development Fund Project(NDF) Contribution towards salaries, facilities		
FONERWA	In kind	1,474,135	Output 3.4: Rain water harvesting and reuse project in Kamonyi		

Table 14: Detailed Parallel Co-Finance Table

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			District		
UNDP	Grants	1,000,000	Outcome 2	Reduction in UNDP core funding	As above
Total		26,493,365			A

UNDP Direct Project Services as requested by Government: The Implementing Partner has requested that UNDP Country Office undertake some procurement on behalf of the project such as recruitment of PMU, Subject Specialist, MTR, and TE consultants. This should be in accordance with UNDP-GEF rules and the Universal Price List of UNDP and in line with the Letter of Agreement (Annex 21), which outlines the requested services). The latter will recover Direct Project Costs accordingly. The Table below summarizes the requested tasks and their costs.

Support services	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1. Recruitment and payment of Consultants (\$10,288)	To be recruited as per AWP	As per Universal Price List (UPL), the service fee is estimated at USD 514.35 per consultant times 20 recruitment over 6 years.	ATLAS billing
2. Procurement of services (\$ 18,084)	To be engaged as per AWP	As per UPL, the service fee is estimated at USD \$371.31 for small scale procurement below \$50,000 and USD \$ 694.80 for large scale procurement above \$50,000. 10 large scale procurement and 30 small scale procurement estimated.	ATLAS billing
 Travel arrangements (\$9,618) 	To be engaged as per AWP	As per UPL, the service fee is estimated at USD 96.18 per travel per person times total 100 travel-persons over 6 years.	ATLAS billing
4. Miscellaneous payments (\$ 3,849)	To be arranged as per AWP	As per UPL, the service fee is estimated at USD 38.49 times 100 miscellaneous payments over 6 years.	ATLAS billing
Total		\$41,844	

<u>Budget Revision and Tolerance</u>: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

<u>Refund to GEF</u>: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

<u>Project Closure</u>: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.¹³³ On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

<u>Operational completion</u>: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

<u>Transfer or disposal of assets</u>: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the Government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file¹³⁴.

<u>Financial completion</u>: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

¹³³ see <u>https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx</u> ¹³⁴ See

https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project% 20Management_Closing.docx&action=default

9 TOTAL BUDGET AND WORK PLAN¹³⁵

Total Budget and Work P	lan								
Atlas Proposal or Award ID:	105937	Atlas Primary Output Project ID:	106918						
Atlas Proposal or Award Title:	Forest Landscape Re	storation in the Mayaga Region							
Atlas Business Unit	RWA 10	RWA 10							
Project Title	Forest Landscape Restor	ation in the Mayaga region							
UNDP-GEF PIMS No.	5702								
Implementing Partner	REMA (Rwanda Enviror	nmental Management Authority), Gisagara, Ruhango, Ny	anza and Kamonyi Districts						

GEF Component/Atlas Activity	Parties (Atlas Impleme nting Agent)	Fund ID	Donor Name	Atlas Budget ary Accou nt Code	Title	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	Budge t Note
				71400	Service Contract Individual	30,000	30,000	30,000	10,000	10,000	10,000	120,000	1
Outcome 1: Policy, regulatory and institutional framework for effective FLR				71200	International Consultants	20,000	20,000	20,000	5,000	5,000	5,000	75,000	2
	62000	GEF	72100	Contractual Services- Companies	150,000	100,000	50,000	30,000	10,000	0	340,000	3	
				72800	Information technology Equipment	10,000	10,000	50,000	50,000	10,000	0	130,000	4
				74200	Audio Visual and Print Prod Costs	10,000	10,000	10,000	5,000	3,000	2,000	40,000	5

¹³⁵ UNEP (2012) estimated that the average cost to establish one hectare of radical terraces in Rwanda (including manpower and basic tools such as picks, shovels etc.) is USD 1000 (Technology Needs Assess9ment and Technology Action Plans for Climate Change Mitigation and Adaptation). However, Jean BIZIMANA (2011) reported that the cost of establishing radical terraces on one hectare in Gakenke district (Rwanda) 10 was USD 300 (ECONOMIC IMPACT ANALYSIS OF RADICAL TERRACING PROJECT Case study CYABI NGO Sector in GAKENKE District; MSc Thesis under FACULTY OF AGRICULTURAL ENGINEERING AND ENVIRONMENTAL SCIENCES. https://ntakirutimana.files.wordpress.com/2011/12/economic-imapet-analysis-of-radical-terracing-pdf.pdf)

				72200	Equipment and Furniture	10,000			10,000			20,000	6
				71600	Travel	50,000	50,000	50,000	50,000	20,000	10,000	230,000	
				72300	Materials and Goods	120,000	100,000	55,000	50,000	50,000	10,000	385,000	7 8
				75700	Workshops and Confer	40,000	40,000	30,000	20,000	20,000	10,000	160,000	9
				Total Co	omponent 1	440,000	360,000	295,000	230,000	128,000	47,000	1,500,000	
				71200	International Consultants	15,000	15,000	15,000	15,000	10,000	10,000	80,000	10
				71300	Local Consultants	15,000	15,000	15,000	15,000	15,000	15,000	90,000	11
Outcome 2: Individual and institutional capacities enhancement for planning and implementing gender sensitive forest landscape restoration strategies supported by knowledge	-			72100	Contractual Services- Companies	70,000	50,000	50,000	40,000			210,000	12
	UNDP	04000	UNDP	72800	Information Technology Equipment			30,000			50,000	80,000	13
				71200	International Consultants	5,000	3,000	3,000	3,000	1,000	1000	16,000	14
management			71600	Travel	15,000	15,000	15,000	15,000	15,000	15,000	90,000	15	
				72300	Materials and Goods	60,000	50,000	30,000	24,000	10,000	10,000	184,000	16
	-			75700	Training, Workshops and Confer	50,000	50,000	50,000	50,000	40000	10000	250,000	17
				Total Co	mponent 2	230,000	198,000	208,000	162,000	91,000	111,000	1,000,000	
Outcome 3: Implementation of FLR plans improves				71300	Local Consultants	50,000	50,000	30,000	20,000	15,000	15,000	180,000	18
management of forest biodiversity in 555 ha of natural forests	REMA	62000	GEF	71200	International Consultants	30,000	30,000	30,000	20,000	20,000	10,000	140,000	19
of natural forests (increasing protection status of 354 ha of the 555ha), puts 300 ha				72100	Contractual Services- Companies	100,000	100,000	100,000	50,000	40,000	30,000	420,000	20

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				74000	Audio Visual and	20.000	24.000	0	20.000	0		04.000	
				74200	Audio Visual and Print Prod Costs	30,000	24,000	0	30,000	0	0	84,000	28
				75700	Workshops and Confer	40,000	40,000	40,000	30,000	30,000	20,000	200,000	29
				Total Co	omponent 3	950.000	924,000	812,000	704,000	571,000	456,538	4,417,538	
				Totarec	1	9201000	924,000	012,000	/04,000	5/1,000	430,338	4,417,550	
				71400	Contractual service individuals	15,000	15,000	15,000	15,000	15,000	15,000	90,000	30
				72800	Information Technology Equipment	4,000	4,000	5,156	4,000	4,000	6,000	27,156	31
Project Monocomont	LINDD/	62000	GEF	71600	Travel	3,500	3,500	8,500	3,500	3,500	8,500	31,000	32
Project Management Unit	UNDP/ REMA			· · · · · · · · · · · · · · · · · · ·		2 500	2 500	38,500	3,500	3,500	53,500	106,000	33
				74100	Professional	3,500	3,500	36,500					22
				74100	Services	3,500	3,300	38,500					
				74100 74596	Services Direct Project	6,974	6,974	6,974	6,974	6,974	6,974	41,844	34
					Services								

UNDP Total 230,000 198,000 208,00	00 162,000	91,000 111,000	1,000,000
Grand Total 1,652,974 1,514,974 1,389,1	130 1,128,974	822,974 704,512	2 7,213,538

Summary of Funds

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
GEF	1,377,500	1,321,500	1,228,500	964,500	731,500	590,038	6,213,538
UNDP	230,000	198,000	208,000	162,000	91,000	111,000	1,000,000
Gov Co-fin	4,570,000	4,500,000	4,500,000	4,500,000	4,400,000	3,023,366	25,493,366
TOTAL	6,177,500	6,019,500	5,936,500	5,626,500	5,222,500	3,724,404	32,706,904

Table 15: Budget Notes

Budget Note	Explanation
	Explanation Knowledge based forest restoration plans, covering over 263,270 ha, with institutional and legislation frameworks This budget will hire the services of national consultant (could be the Project Manager) to lead the stakeholders to review definitions of the concept of SFM currently under use at the international level and harmonise definition under the National Forestry Policy, write and disseminate addendum or a technical note to all relevant stakeholders; build on the work done by the Landscape Approach to Forest Restoration and Conservation (LAFREC), a GEF 5 FLR Project being co-implemented by the World Bank and REMA, to continue the streamlining the definition of FLR and support the establishment of national level policy environment to promote its widespread uptake; facilitate the JADF to adopt both the SFM and FLR definition for the purposes of the planning and implementation of FLR in the four districts; review the current levels of operations and effectiveness of the JADFs in coordinating cross sector collaboration on forest management in the four districts. Identify strengths, challenges and best practices; design and implement program to increase effectiveness of JADF to coordinate relevant sectors to plan and implement FLR; this will include establishment of an FLR Thematic Group under JADF; review local level enforcement of national policies related to forest and biodiversity conservation; formulate and implement program to support more effective implementation of national policies at the local level; this will include providing policy statements in local language formulation and implement providing policy statements in
2	local language, formulation of by-laws to change the requirement of obtaining permits to cut trees from two to one hectare, etc. This budget will hire the services of an international consultant to assist the national consultant to implement the activities outlined under budget note 1. The international consultant will
3	Budget under note 3 will hire the services of a technical institution (such as IUCN/WRI) to lead the stakeholders to produce FLR master plans, including Environmental and Social Management Plans (based on an in-depth Environmental and Social Impact Assessment) for

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	selected cases where gazettement or any other restoration activities may necessitate relocations or displacement of groups of people. The institution will acquire geodata and map baseline forest conditions, identifying cells within each district with potential and suitability for the various types of afforestation and forest restoration; assess conditions necessary for the implementation of the identified afforestation/restoration types and further determine/refine selection of areas for afforestation; undertake economic analysis to model the costs and benefits of degraded and restored land, building on the national assessment undertaken by WRI/IUCN/GoR study; design the FLR plans – ensuring full participation and gender considerations in all the steps above; undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, and design an Environmental and Social Management Plan (ESMP) to guide implementation. This ESMP will include a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's SES and the GoR Imidugudu (village) settlement policy.
4	Budget allocated for purchase of the relevant computer hardware and software (database and GIS), routers and other networking needs, printers and scanners required implementing outcome 1, especially the FLR plans.
5	Costs of producing and disseminating: (i) maps, FLR plans and other documents (such as by-law notices, signage) required for the FLR planning and other project materials related to outcome 1.
6	Procurement of basic furnishing and office equipment for PCU and the JADF (if necessary), including tables, chairs, filing cabinets, office stationery and supplies.
7	Local travel (fuel/transport) and DSA costs for the technical teams involved in the FLR planning and other policy and institutional work
8	Purchase of materials and goods to be used for the FLR planning process
9	Cost of workshops and conferences, especially related to the participation of community groups in the planning processes
	Individual and institutional capacities enhancement for planning and implementing gender sensitive forest toration strategies supported by knowledge management
10 and 11	The budget will support the hiring of one national and one international consultants (budget 10 and 11) to supervise the technical institution hired to lead on training; design and implement an M&E plan; design and implement a Knowledge management plan; design and implement a gender mainstreaming strategy plan; design an exit plan, identifying all further support required to sustain the FLR plans once the GEF funding is used up. The strategy should be ready by year four to allow fund-raising for its implementation; organize an international conference in the first quarter of the fifth year to promote the work of the project, share lessons and interest further investments into the FLR plans (from donors and the private sector).
12	Budget under note 12 will be used to hire a technical entity/institution with comparative advantage on skills development for FLR, which will implement the output on capacity enhancement. The ToR for the budget is found in Annex 3 – Overview of Technical consultancies.
13	Cost of information technology required to implement outcome 2.
14	Cost of Mid-term Review and Terminal Evaluation
15	Cost of travel for the technical teams involved in the training and institutional capacity development related work (DSA, fuel, etc.).
16	Purchase of materials and goods to be used to support training and institutional capacity development
17	Cost of workshops and conferences, especially related to the participation of community groups in the planning processes

	Outcome 3: I protection sta	mplementation of FLR plans improves management of forest biodiversity in 555 ha of natural forests (increasing itus of 354 ha of the 555ha), puts 300 ha of forests under participatory forest management, establishes 1,000 ha of nder the New Forest Company through as forests under participatory forest management, establishes 1,000 ha of
- 1	F-minority M	nder the New Forest Company through co-finance, increases productivity of agriculture and plantation forests on I reduces wood consumption by at least 25%
ł		The budget will support the hiring of three local consultants to undertake the following (one coch) 1) and in the initial states to the state of the

10-17	contracted to lead on the establishment of the PAs; 2) facilitate the establishment of plantations and the implementation of the SLM/SFM practices; 3) Supervise the work on the incentives for improved energy practices.
19	Budget 19 will hire international consultants to assist the three national consultants and the PMU with all the tasks under Outcome 3
20	Budget under note 20 will hire a technical entity with comparative advantage at facilitating PA establishment and community/participatory forest management processes. The ToR for the budget are found in Annex 3 – Overview of Technical consultancies
21	This budget will hire a technical entity with comparative advantage in the establishment of plantations, including improving genetic stock of both fast growing commercial and indigenous species, facilitating establishment of nurseries, tree husbandry and connecting tree farmers to private sector/markets for timber products. The ToR for the budget are found in Annex 3 – Overview of Technical consultancies.
22	This budget will hire a technical entity with comparative advantage in the implementation of SLM/SFM practices, including land consolidation processes, agroforestry based fruit/orchards establishment, management and linkages to the private sector/markets. The ToR for the budget are found in Annex 3 – Overview of Technical consultancies
23	The budget will hire a technical entity with comparative advantage on the implementation of improved energy practices including facilitation of sustainable charcoal production, facilitating public institutions to adopt energy switch from wood to methane, and linking households to cooperatives for the cost effective dissemination of improved cookstoves. The ToR for the budget are found in Annex 3 – Overview of Technical consultancies.
24	To support information technology for the four outputs under Outcome 3
25	Meet the cost of travel for the 4 outputs under outcome 3
26	Meet the cost of materials and goods to support implementation of the activities under each output
27	Meet the cost of equipment to support implementation of the activities under each output
28	Cost of audio-visual equipment to support the implementation of activities under each output
29	Cost of technical workshops related to the implementation of the four outputs
30	Project Manager and Project Assistant.
31	Cost of laptops, software licences, external hard drive, photocopying machine, printer, scanner etc. for responsible parties. IT hardware and software for the knowledge management framework and common filing system;

32	Cost of travel for the PMU personnel
33	cost of annual audits, mid-term review and terminal evaluation
34	UNDP Direct Project Cost- for implementation Support Services (e.g. procurement of goods, services, recruitment of project staffs/consultants). The agreement on this expenditure is in Annex 21

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10 LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Rwanda and UNDP. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by Rwanda Environment Management Authority who is the Implementing Partner in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

11 RISK MANAGEMENT

Consistent with the Article III of the SBAA, 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 <u>http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml</u>.

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.

The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-

corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org

In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

UNDP shall be entitled to a refund from the Implementing Partner of any funds provided if used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the

clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

12 MANDATORY ANNEXES

12.1 ANNEX 1: MULTI YEAR WORK PLAN

Activity	Indicator	Responsi		Ye	ar 1			Ye	ar 2			Ye	ar 3			Ye	ar 4			Ye	ar 5			Ye	ır 6	
		ble Party	Q 1	Q 2	Q 1	Q 2	Q 3	Q 4	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Project Inceptio n includin g IW	Inception report/ PCU established	UNDP																								
Outcome ha in 4 di	1: Forest restoration p	plans with in	stituti	onal	and 1	egisla	ation	frame	work	s gui	ding a	affore	static	on, na	tural	resou	irces i	nana	geme	nt and	l agri	cultu	re, co	vering	g 263	,270
	1: Legislation and coo	rdination me	chani	sm i	n plac	e for	effec	tive F	LR																	
1	All activity	PMU			İ									1	Τ	1	T		Τ	1						
2 .	indicators will be developed during the	PMU	100.25440502454	1000000000			1																			
3	inception period by	PMU																		1		1				
4	the stakeholders, led by the PCU and	PMU																		1	1					
5	reported in each six	PMU		1								·														
6	monthly and annual reports	PMU																								
7		PMU																						1		
Output 1.	2: Four FLR plans read	dy for imple	menta	ation,	cove	ring 2	263,2	70 ha																		
8		PMU																								
9		PMU																								
10		PMU																								
11		PMU																								
12		PMU																								
13		PMU																								
14		PMU																								
Outcome	2: Individual and ins	stitutional ca	paciti	ies e	nhanc	emen	nt for	planı	ning	and i	mpler	nenti	ng ge	nder	sensi	tive	forest	land	scape	resto	oratio	n stra	ategie	s sup	porte	d by

Ouput PMU PMU <th< th=""><th>Guipper groups Output 2.1: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent 11 PMU PMU PMU 15 PMU PMU PMU 16 PMU PMU PMU 17 PMU PMU PMU 18 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 10 PMU PMU PMU 11 PMU PMU PMU 10 PMU PMU PMU 10 PMU PMU PMU 11 PMU PMU PMU 12 PMU PMU PMU 13 PMU PMU PMU 14 PMU PMU PMU 15 PMU PMU PMU 16 PMU PMU PMU 17 PMU PMU PMU 18 PMU PMU PMU 19 PMU PMU PMU <</th><th></th><th>PMU</th><th>34</th></th<>	Guipper groups Output 2.1: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent 11 PMU PMU PMU 15 PMU PMU PMU 16 PMU PMU PMU 17 PMU PMU PMU 18 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 19 PMU PMU PMU 10 PMU PMU PMU 11 PMU PMU PMU 10 PMU PMU PMU 10 PMU PMU PMU 11 PMU PMU PMU 12 PMU PMU PMU 13 PMU PMU PMU 14 PMU PMU PMU 15 PMU PMU PMU 16 PMU PMU PMU 17 PMU PMU PMU 18 PMU PMU PMU 19 PMU PMU PMU <		PMU	34	
Output 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent all stakeholder groups 14 PMU	Compute 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Assessment for all stakeholder groups 16 PMU		PMU	33	
Otypu: 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment by 25 percentage points on the UNDP Capacity Assessment for all stakeholder groups 17 PMU PMU <t< td=""><td>Guipue 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent all stakeholder groups 13 PMU PMU</td><td></td><td>PMU</td><td>32</td></t<>	Guipue 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent all stakeholder groups 13 PMU		PMU	32	
Otypu 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent 13 PMU PMU PMU 14 PMU PMU PMU 15 PMU PMU PMU 16 PMU PMU PMU 17 PMU PMU PMU 18 PMU PMU PMU 19 PMU PMU PMU 10 PMU PMU PMU 11 PMU PMU PMU 12 PMU PMU PMU 13 PMU PMU PMU 14 PMU PMU PMU 15 PMU PMU <td< td=""><td>Compute 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percental and a stakeholder groups 14 PMU PMU<td></td><td>PMU</td><td>31</td></td></td<>	Compute 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percental and a stakeholder groups 14 PMU PMU <td></td> <td>PMU</td> <td>31</td>		PMU	31	
Output 21: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percental all stakeholder groups 13 PMU	Output 2.1: Training programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent. 13 PMU		PMU	30	
Output 21: Training programs implemented for all stakeholder groups PMU	Output 21: Fraining programs implemented for all stakeholders, increasing the average individual score on the UNDP Capacity Assessment by 25 percent 13 PMU <		PMU	29	
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Output 3.3: SLM/S	SFM practices implemented in >	25,000 ha	ofa	gricul	ture	and,	inclu	ding a	grofo	restr	y on 1	,000	ha of	cons	olida	ed la	nd	14 14 14 14 14 14 14 14 14 14 14 14 14 1		1111111111111	Association of the	Turberraitoreas	1100
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63	PMU	
Output 3.4: Wood	consumption reduced by 25% f	om improved household and institutional cooking energy technologies
64	PMU	
65	PMU	
66	PMU	
67	PMU	
68	PMU	
69	PMU	
70	PMU	
71	PMU	
72	PMU	
73	PMU	
74	PMU	

Table 16: Activity Coding

Outcon	nel
1.	Review definitions of the concept of SFM currently under use at the international level and harmonise definition under the National Forestry Policy, write and disseminate addendum or a technical note to all relevant stakeholders;
2.	Building on the work done by the Landscape Approach to Forest Restoration and Conservation (LAFREC), a GEF 5 FLR Project being co- implemented by the World Bank and REMA, continue the streamlining the definition of FLR and support the establishment of national level policy environment to promote its widespread uptake;
3.	Facilitate the JADF to adopt both the SFM and FLR definition for the purposes of the planning and implementation of FLR in the four districts.
4.	Review the current levels of operations and effectiveness of the JADFs in coordinating cross sector collaboration on forest management in the four districts. Identify strengths, challenges and best practices;
5.	Design and implement program to increase effectiveness of JADF to coordinate relevant sectors to plan and implement FLR; this will include establishment of an FLR Thematic Group under JADF.
6.	Review local level enforcement of national policies related to forest and biodiversity conservation;
7.	Formulate and implement program to support more effective implementation of national policies at the local level; this will include providing policy statements in local language, formulation of by-laws to change the requirement of obtaining permits to cut trees from two to one hectare, etc.
8.	Constitute an FLR planning Technical Group. The Technical Group will be led by RFA with members from WRI, IUCN, ICRAF, JADF FLR

	Thematic group, academia, local CSO;
9.	Establish linkages between this project and the World Bank-supported Landscape Approach to Forest Restoration and Conservation (LAFREC) project and other projects in the country that might be formulating FLR plans;
10.	Acquire geodata and map baseline forest conditions, identifying cells within each district with potential and suitability for the various types of afforestation and forest restoration;
11.	Assess conditions necessary for the implementation of the identified afforestation/restoration types and further determine/refine selection of areas for afforestation;
12.	Undertake economic analysis to model the costs and benefits of degraded and restored land, building on the national assessment undertaken by WRI/IUCN/GoR study;
13.	Design the FLR plans – ensuring full participation and gender considerations in all the steps above.
14.	Upgrade existing FMIS (Forest Monitoring and Information System) to include FLR at both national and local level
Outcom	e 2:
13.	Identify key stakeholders relevant to the planning and implementation of the FLR plans in the four districts and those supporting them at regional and national levels. This should include all categories of stakeholders (community groups, community-based organizations, civil society, technical staff of technical support institutions);
14.	Undertake skills needs assessment and identify gaps in skills;
15.	Assess training materials available in the country and beyond, and modify to suit the project requirements and the skills-gaps;
16.	Implement training program, ensuring gender mainstreaming to reach all gender groups
17.	Identify institutions relevant to the planning and implementation of the FLR plans in the four districts and those supporting them at regional and national levels. This should include all categories of stakeholders (community groups, community-based organizations, civil society, technical staff of technical support institutions);
18.	Undertake institutional capacity assessment and identify gaps;
19.	Design and implement the program to address the capacity gaps.
20.	Design, in a participatory and gender inclusive process, an M&E plan;
21.	Design, in a participatory and gender inclusive process, a Knowledge management plan;
22.	Design, in a participatory and gender inclusive process, a gender mainstreaming strategy plan (building on the work of IUCN on gender mainstreaming in FLR);
23.	Implement the plans;
24.	Design an exit plan, identifying all further support required to sustain the FLR plans once the GEF funding is used up. The strategy should be ready by year four to allow fund-raising for its implementation;
25.	Hold an international conference in the first quarter of the fifth year to promote the work of the project, share lessons and interest further investments into the FLR plans (from donors and the private sector).

45. Using the FLR plans, and with reference to the PPG assessments on forests and forest productivity, identify plantations and small natural forests owned by both individual and institutions with potential for improvement on species mix, higher productivity species and techniques, clearing of <i>Lantana camara</i> and design an action plan to improve all aspects;
44. Design an action plan and implement to ensure that implementation of the FLR plans is supported by high quality seedlings of both indigenous and plantation species, widely available in the project sites;
43. Undertake an assessment of the assistance provided to the Tree Seed Centre by other projects and identify the role this project should play in further improvement of the quality of seedlings;
42. Monitor progress, success and challenges to afforestation and take adaptive/corrective measures to ensure high seedling survival rates (in conjunction with the M&E and knowledge sharing tasks.
41. Identify challenges and facilitate provision of training, materials and technical support to improve harvesting, processing, packaging, and linkages to markets for NTFPs (in conjunction with Output 3.3);
40. Undertake an assessment of the current and potential NTFPs production and identify individuals, groups and/or cooperatives harvesting and trading in them (in conjunction with output 3.3);
39. Facilitate afforestation via VUP approach;
38. Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company as described under output 3.3) – working out a financial arrangement for entrepreneurs, through cooperatives;
37. Undertake an assessment of the extent of deforestation and degradation of the natural forests and design a reforestation program, agreed to by all relevant stakeholders;
36. Undertake consultations and negotiations with the villages on roles, responsibilities, benefits, and develop co-management agreements, signed by the relevant authorities;
35. Develop criteria and apply it to select villages/communities where PFM is appropriate;
34. Organise and routinely implement surveillance and monitoring to reduce illegal logging, uncontrolled clearing, and encroachment for agriculture and mining
33. Design PA and implement management plans, business and sustainable financing plans;
32. Establish the facilities to operationalize the PA management units;
31. Assess requirements for establishing small light units to manage the new PAs;
30. Design and implement a lobby strategy to ensure that gazettement does not delay unnecessarily;
29. Submit the files;
28. Prepare nomination files for the gazettement to legalize status of the natural forests, in a highly participatory process;
27. Assess biodiversity, classify and propose for gazettement
26. Form forest protection Stakeholder Working Groups;
Outcome 3

65. Training of 500 charcoal cooperative members in cooperative management, improved charcoal production technologies, licensing and permitting for tree cutting and charcoal production, and marketing of certified green charcoal, if found feasible (under Outcome 2).
64. Undertake baseline assessment of existing charcoal producers technical and organisational capacity.
63. Build the terraces (via VUP), monitor and report their effectiveness.
62. Identify providers of veterinary services and assess their capacities/challenges, work out an action plan to improve services for the FFS receiving livestock;
61. Acquire and place livestock within the FFS;
60. Design agreements with the FFS groups detailing the system parameters (types of livestock preferred, size of terrace per unit of livestock, monitoring system to ensure compliance with maintaining of the terraces once livestock is received; sharing arrangements (passing on livestock to others) and a roster for sharing, rules and regulations governing the livestock sharing within the FFS and between FFSs and the project/authorities;
59. Undertake an assessment of the current state of terracing/SLM in the selected areas and identify potential FFS groups to pilot the livestock for terraces initiative;
58. Using the FLR plans, identify areas suitable for SLM via terracing and determine areas for project priority;
57. Provide extension support (skills acquired under outcome 2) and linkages to agro-processors and markets.
56. Facilitate provision/availability of planting materials through cooperatives;
55. Facilitate the negotiations and land consolidation process;
54. Identify areas suitable for land consolidation for the purposes of growing tree crops for the markets;
53. Facilitate the formation of new FFS where needed and provide support necessary to make them function effectively;
52. Undertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support required to make existing ones effective;
51. Using the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority;
50. Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company as described under output 3.2);
49. Design and implement a strategy to identify the owners, convince them of the benefits of afforestation (with both indigenous and plantation species), negotiate action plans for afforestation;
48. Using the FLR plans, identify areas currently not forested but with potential for afforestation, including land owned by individuals and institutions;
47. Negotiate with the forest owners to implement improvements, assisted by the project, under clear agreements that spell out roles and responsibilities, benefits, etc.;
46. Support the establishment of Private Forest Owners Association and/ or forest management committees;

- 66. Undertake market analysis to better understand the demand and supply of charcoal in the project area, and to design activities that will boost the value and accessibility to the potential markets.
- 67. Supply wood and charcoal processing equipment (mobile sawmills, improved mobile kilns and storage/transport facilities)
- 68. Undertake field evaluation on uptake of improved technologies, on operational experiences and the efficiency of the kilns and quality test of the charcoal Follow-up to secure uptake of improved kilns (as part of monitoring, in conjunction with Outcome 2);
- 69. Recruit, in a competitive and gender sensitive process, Responsible Party to play an intermediate role between the project and the cookstove producers;
- 70. Prepare a Contribution Agreement to guide the interactions between the Responsible Party and cookstove producers;
- 71. Recruit, in a competitive and gender sensitive process, a CSO(s) to implement the end-user rebate programme for rural households and/or institutions;
- 72. Prepare a work programme for the CSO(s) to guide the implementation of the end-user rebate programme;
- 73. Supervise the work of both partnerships to ensure distribution of at least 10,000 stoves per year.
- 74. Design and implement a communication strategy to promote widespread adoption of cookstoves

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12.2 ANNEX 2: GEF CORE INDICATORS AT BASELINE

In a separate file.
		Consultant
		For Project Management / Monitoring & Evaluation
Local / Natio	Local / National contracting	
Project Manager (Watershed Management Specialist)	312 weeks (over 6 years)	A Project Manager will be competitively hired to undertake the tasks described in budget notes 2, 11 and 18. Together, the PM and the Sector Specialist will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. In addition to the ToR outlined in Annex 4, the PM will undertake the following:
\$ 641/week		 Under Outcome 1 (budget notes 1 and 2), the PM will coordinate stakeholder input into the following tasks: 1) Review definitions of the concept of SFM and FLR currently under use at the international level and harmonise definition under the National Forestry Policy, write and disseminate addendum or a technical note to all relevant stakeholders;
		 Facilitate adoption of the SFM definition for the purposes of the planning and implementation of FLR in the four districts; Review the current levels of operations and effectiveness of the JADFs in coordinating cross sector collaboration on forest management in the four districts. Identify strengths, challenges and best practices;
		4) Design and implement program to increase effectiveness of JADF to coordinate relevant sectors to plan and implement FLR; this will include establishment of an FLR Thematic Group under JADF;
		o) rormulate and implement program to support more effective implementation of national policies at the local level; this will include providing policy statements in local language, formulation of by-laws to change the requirement of obtaining permits to cut trees from two to one hectare, etc.;
		7) Establish linkages between this project and LAFREC project and other projects in the country that might be formulating FLR plans, constituting the FLR planning Technical Group;
		8) Supervise the work of the technical institution to be hired to lead the FLR planning. Under Outcome 2 (budget note 10), the PM will coordinate stakeholder input and participation into the following:
		1) Assist the Sector Specialist in recruitment and coordinate the technical institution hired to lead on training;
		3) Design and implement, in a participatory and gender inclusive process, at MACE plan;
		4) Design and implement, in a participatory and gender inclusive process, a gender mainstreaming strategy plan;
		5) Design an exit plan, identifying all further support required to sustain the FLR plans once the GEF funding is used up. The strategy should be ready by year four to allow fund-raising for its implementation;
		6) Organize an international conference in the first quarter of the fifth year to promote the work of the project, share lessons and interest further investments into the FLR plans (from donors and the private sector).

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12.3 ANNEX 3: OVERVIEW OF TECHNICAL CONSULTANCIES

Specialist (over o years) A Sector Specialist will be competitively recruited from the regional or international market to undertake tasks described u \$ 1,282/week A Sector Specialist will be competitively recruited from the regional or international market to undertake tasks described u \$ 1,282/week Under Outcome 1 (budget notes 1, 10 and 17. Together, the PM and the Sector Specialist will be responsible for the overall management or project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. In add to the ToR outlined in Annex 4, the Sector Specialist will supervise stakeholder input into the following tasks: 1) Review definitions of the concept of SFM currently under use at the international level and harmonise definition under National Forest Policy, write and disseminate addendum or a technical note to all relevant stakeholders; 2) Facilitate adoption of the SFM definition for the purposes of the JADFs in coordinating cross sector collaboration on f management in the four districts. Identify strengths, challenges and best practices; 4) Design and implement program to increase effectiveness of JADF to coordinate relevant sectors to plan and implement program to fan FLR. Thematic Group under JADF;	312 week	International / regional contracting	For Technical Assistance	Rate \$ 104/week	t	Project 288 weeks Administrative support and Office Management for the Project Management Unit. Admin in six years Ensure a proper e-filing system	 Ensure that the baseline is available and take overall responsibility in its implementation; Ensure that sources of data, collection methods, who collects data, how often, cost of collection and who analyzes i understood across the organization; Build the capacity of all beneficiaries of the project to collect, collate, analyze, and disseminate information based on results 	M&E312weeksAn experiencedM&ESpecialist will be competitively hiredSpecialist(over6building and regular monitoring of the project using GIS and ot\$641/weekyears)below but not limited to:	1) Coordinate stakeholder input for four technical entit establishment of plantations, the implementation of the
 A Sector Specialist will be competitively recruited from the regional or international market to undertake tasks described under project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. In addition to the ToR outlined in Annex 4, the Sector Specialist will have responsibilities for technical assistance described below: Under Outcome 1 (budget notes 1 and 2), the Sector Specialist will supervise stakeholder input into the following tasks: 1) Review definitions of the concept of SFM currently under use at the international level and harmonise definition under the National Forest Policy, write and disseminate addendum or a technical note to all relevant stakeholders; 2) Facilitate adoption of the SFM definition for the purposes of the planning and implementation of FLR in the four districts; Identify strengths, challenges and best practices; 4) Design and implement program to increase effectiveness of JADF to coordinate relevant sectors to plan and implement of an FLR Thematic Group under JADF; 						Management Unit.	bility in its implementation; ects data, how often, cost of collection and who analyzes it are , collate, analyze, and disseminate information based on results	An experienced M&E Specialist will be competitively hired to carry out M&E activities, including baseline studies, capacity building and regular monitoring of the project using GIS and other necessary software. Key duties of the M&E Specialist will be as below but not limited to:	Coordinate stakeholder input for four technical entities to be contracted to lead on the establishment of the PAs, the establishment of plantations, the implementation of the SLM/SFM practices and the improved energy practices outputs.

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 For selected areas where project activities are likely to lead to relocation of people, undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, and design an Environmental and Social Management Plan (ESMP) to guide implementation. This ESMP will include a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be 		
• Design the FLR plans – ensuring full participation and gender considerations in all the steps above.		
 Undertake economic analysis to model the costs and benefits of degraded and restored land, building on the national assessment undertaken by WRI/IUCN/GoR study; 		
 Assess conditions necessary for the implementation of the identified afforestation/restoration types and further determine/refine selection of areas for afforestation; 		\$1,510.4/wee k
• Acquire geodata and map baseline forest conditions, identifying cells within each district with potential and suitability for the various types of afforestation and forest restoration;		Rate -
A technical institution (such as IUCN/WRI) to lead the stakeholders to produce FLR master plans (budgeted under budget note 3). The institution will:	s).	Entity for FLR planning
1) To supervise four technical entities to be contracted to lead on the establishment of the PAs, the establishment of plantations, the implementation of the SLM/SFM practices and the improved energy practices outputs. Output 2.	192 weeks	Technical
\sim		
6) Organize an international conference in the first quarter of the fifth year to promote the work of the project, share lessons and interest further investments into the FLR plans (from donors and the private sector).		
5) Design an exit plan, identifying all further support required to sustain the FLR plans once the GEF funding is used up. The strategy should be ready by year four to allow fund-raising for its implementation;		
2) Design and implement, in a participatory and gender inclusive process, an M&E plan;		
1) Supervise the technical institution hired to lead on training;		
Under Outcome 2 (budget note 10), the Sector Specialist will undertake the following:	*****	
8) Supervise the work of the technical institution to be hired to lead the FLR planning.		
7) Establish linkages between this project and LAFREC project and other projects in the country that might be formulating FLR plans, constituting the FLR planning Technical Group;		
will include providing policy statements in local language, formulation of by-laws to change the requirement of obtaining permits to cut trees from two to one hectare, etc.;		
6) Formulate and implement program to support more effective implementation of national policies at the local level; this		
5) Review local level enforcement of national policies related to forest and biodiversity conservation;		

		For Technical Assistance
National / r	National / regional contracting	ting
Technical	144 weeks in	Outcome 2: Output 2.1 and 2.2
entity to		
lead skills developme nt		A technical entity/institution with comparative advantage on skills development for FLR will be hired under Budget under note 12. The entity will:
		• Identify institutions relevant to the planning and implementation of the FLR plans in the four districts and those supporting
Rate –		them at regional and national levels. This should include all categories of stakeholders (community groups, community-
1588.3 per		based organizations, civil society, technical staff of technical support institutions);
week		• Undertake skills needs assessment and identify gaps in skills; assess training materials available in the country and beyond, and modify to suit the project requirements and the skills-gaps;
		 Implement training program, ensuring gender mainstreaming to reach all gender group;
		 Identify institutions relevant to the planning and implementation of the FLR plans in the four districts and those supporting them at regional and national levels. This should include all categories of stakeholders (community groups, community- based organizations give boolety technical staff of technical support institutions).
		• Undertake institutional capacity and identify gaps (resources that the institutions require to facilitate staff members to operate, such as transport, communications systems, and office operations);
		Design and implement the program to address the capacity gaps.
ical	144 weeks in	Outcome 3: Output 1
entity to lead PA	6 years	
aper		A technical entity with comparative advantage at facilitating PA establishment and community/participatory forest management processes will be recruited (budget under note 19). The entity will:
nt activities		 Establish PA establishment Stakeholder Working Groups;
		• Prepare nomination files for the gazettement of the 3 forests, in a highly participatory process; submit the files;
Kale –		 Design and implement a lobby strategy to ensure that gazettement does not delay unnecessarily;
week		 Assess requirements for establishing small light units to manage the new PAs;

explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's SES and the GoR Imidugudu (village) settlement policy.

		Establish the fate fate fate fate fate fate fate fat) the facilities to operationalize the PA management units; design PA management plans, business and sustainable g plans;
		 Organise encroachi 	Organise and routinely implement surveillance and monitoring to reduce illegal logging, uncontrolled clearing, and encroachment for agriculture and mining.
		 Develop negotiatic relevant a 	Develop criteria and apply it to select villages/communities where PFM is appropriate; undertake consultations and negotiations with the villages on roles, responsibilities, benefits, and develop co-management agreements, signed by the relevant authorities;
		 Undertako program, 	Undertake an assessment of the extent of deforestation and degradation of the natural forests and design a reforestation program, agreed to by all relevant stakeholders;
		• Establish tree to the Tree arrangement	Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company as described under output 3.3) – working out a financial arrangement for entrepreneurs, through cooperatives;
		 Facilitate 	Facilitate afforestation via VUP approach;
		 Undertake a cooperatives 	Undertake an assessment of the current and potential NTFPs production and identify individuals, groups and/or cooperatives harvesting and trading in them (in conjunction with output 3.3);
		 Identify chal packaging, and 	Identify challenges and facilitate provision of training, materials and technical support to improve harvesting, processing, packaging, and linkages to markets for NTFPs (in conjunction with Output 3.3);
		 Monitor prog survival rates 	Monitor progress, success and challenges to afforestation and take adaptive/corrective measures to ensure high seedling survival rates (in conjunction with the M&E and knowledge sharing tasks.
Technical	220 weeks in	Outcome 3: Output 2	out 2.2:
~	6 years	1	
lead the		A technical entity	A technical entity will be hired (under budget note 20). The entity will have comparative advantage in the establishment of
expansion (with hoth		plantations, including nurseries, tree husband	plantations, including improving genetic stock of both fast growing commercial and indigenous species, facilitating establishment of nurseries, tree husbandry and connecting tree farmers to private sector/markets for timber products. The entity will:
fast growing		 Undertake an project should 	Undertake an assessment of the assistance provided to the Tree Seed Centre by other projects and identify the role this project should play in further improvement of the quality of seedlings;
and indigenous		 Design an of both in 	Design an action plan and implement to ensure that implementation of the FLR plans is supported by high quality seedlings of both indigenous and plantation species. widely available in the project sites:
trees).		 Using the 	Using the FLR plans, and with reference to the PPG assessments on forests and forest productivity identify plantations and
Rate - \$ 1773 per		small natural productivity s	small natural forests owned by both individual and institutions with potential for improvement on species mix, higher productivity species and techniques, clearing of <i>Lantana</i> and design an action plan to improve all aspects;
week		 Negotiate roles and 	Negotiate with the forest owners to implement improvements, assisted by the project, under clear agreements that spell out roles and responsibilities, benefits, etc.;
		Using the FL	e FLR plans, identify areas currently not forested but with potential for afforestation, including land owned by

 Design and indigenous at indigenous at Establish tree Establish tree to the Tree S Establish tree to the Tree S Establish tree Establish tree Establish tree Untcome 3 - Output A technical entity wil B under SLM: B under Livestock for 	 Design and implement a strategy to identify the owners, convince them of the benefits of afforestation (with both indigenous and plantation species), negotiate action plans for afforestation; Establish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities to the Tree Seed Company and/or New Forest Company as described under output 3.2); Buttome 3 - Output 2.3: A technical entity will be hired to lead SFM/SLM activities (under budget note 21). The entity will have comparative advantage in the implementation of SLM/SFM practices, including land consolidation processes, agroforestry based fruit/orchards establishment, management and linkages to the private sector/markets. The entity will undertake the following: Under SLM: a. Using the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; b. Undertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support required to make existing ones effective; c. Facilitate the formation of new FFS where needed and provide support necessary to make them function effectively; d. Identify areas suitable for land consolidation process. f. Facilitate the negotiations and land consolidation process.
ical 280 weeks in Outcom on 6 years A techni of managen SFM BFM managen ces Under S week b. 	tablish tree nurseries with both quality stock of indigenous and plantation, fast growing species (or link the communities the Tree Seed Company and/or New Forest Company as described under output 3.2); - Output 2.3: - Output 2.4: - Output 0.5: - Output
ical 280 weeks in Outcom on 6 years A techni of the imple SFM Ears A techni managen es a. week b. d. d. d. d. d. d.	 Output 2.3: entity will be hired to lead SFM/SLM activities (under budget note 21). The entity will have comparative advantage in entation of SLM/SFM practices, including land consolidation processes, agroforestry based fruit/orchards establishment, it and linkages to the private sector/markets. The entity will undertake the following: A: /ul>
on 6 years nent of SFM SFM ces - \$ week b. under S - 6. c. d. d. d. d. d. b. Wanagen ess veek	entity will be hired to lead SFM/SLM activities (under budget note 21). The entity will have comparative advantage in entation of SLM/SFM practices, including land consolidation processes, agroforestry based fruit/orchards establishment, it and linkages to the private sector/markets. The entity will undertake the following: A: A: A: ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; ing the FLR plans, identify areas suitable for afforestation via agroforestry and the selected areas and identify additional support ing the FLR plans, identify areas suitable for afforestation via support necessary to make them function effectively; ellitate the formation of new FFS where needed and provide support necessary to make them function effectively; cilitate the negotiations and land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate the negotiations and land consolidation process;
nent A techni of A techni SFM Banagen ces Under S a. Under S b. b. veek b. c. d. d. d. g. g. Under L	entity will be hired to lead SFM/SLM activities (under budget note 21). The entity will have comparative advantage in entation of SLM/SFM practices, including land consolidation processes, agroforestry based fruit/orchards establishment, at and linkages to the private sector/markets. The entity will undertake the following: At: ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; detrake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support quired to make existing ones effective; cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate the negotiations and land consolidation process;
SFM SFM managen a. B. Week b. c. c. d. f. f. f.	A: A: A: A: A: A: A: A: A: A: A: A: A: A
ces - \$ Under S week b. d. d. d. f. f.	A: ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; dertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support quired to make existing ones effective; cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate the negotiations and land consolidation process;
- \$ Under S - " " " " " " " " " " " " " " " " " "	A: ing the FLR plans, identify areas suitable for afforestation via agroforestry and determine areas for project priority; idertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support quired to make existing ones effective; cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate the negotiations and land consolidation process;
ر week من المراجع br>Under L	Ing the FLK plans, identify areas suitable for attorestation via agrotorestry and determine areas for project priority; detrake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support quired to make existing ones effective; cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate the negotiations and land consolidation process;
ს Under L	indertake an assessment of Farmer Field Schools (FFS) groups in the selected areas and identify additional support quired to make existing ones effective; cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process;
c. Facilit d. Identi e. Facilit f. Facilit g. Provid Under Livesto	cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process;
c. Facilities for the facility of the facility	cilitate the formation of new FFS where needed and provide support necessary to make them function effectively; lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process;
d. Identi e. Facilit f. Facilit g. Provid Under Livestoe	lentify areas suitable for land consolidation for the purposes of growing tree crops for the markets; cilitate the negotiations and land consolidation process; cilitate provision/availability of planting materials through conservatives:
e. Facilit f. Facilit g. Provid Under Livesto	cilitate the negotiations and land consolidation process; cilitate provision/availability of planting materials through conneratives:
f. Facilit g. Provid Under Livestoe	cilitate nrovision/availability of nlantine materials throuch cooneratives:
g. Provid Under Livesto	
Under Livestoe	Provide extension support (skills acquired under outcome 2) and linkages to agro-processors and markets.
	Under Livestock for Terraces
a. Using	Using the FLR plans, identify areas suitable for SLM via terracing and determine areas for project priority;
b. Undert	Undertake an assessment of the current state of terracing/SLM in the selected areas and identify potential FFS groups to pilot the livestock for terraces initiative;
c. Design	Design agreements with the FFS groups detailing the system parameters (types of livestock preferred, size of terrace per
unit of sharing	unit of investock, monitoring system to ensure compliance with maintaining of the terraces once investock is received; sharing arrangements (passing on livestock to others) and a roster for sharing, rules and regulations governing the livestock
sharing	sharing within the FFS and between FFSs and the project/authorities;
d. Acquir	Acquire and place livestock within the FFS;
e. Identif for the	Identify providers of veterinary services and assess their capacities/challenges, work out an action plan to improve services for the FFS receiving livestock;
f. Build t	Build the terraces (via VUP);

Technical	280 weeks in		Outcome 3 – Output 3.4:
entity to	6 years		
lead energy initiatives		A techr energy wood to	A technical entity will be hired (under budget note 22), which will have comparative advantage on the implementation of improved energy practices including facilitation of sustainable charcoal production, facilitating public institutions to adopt energy switch from wood to methane, and linking households to cooperatives for the cost effective dissemination of improved coekstoves. The entity
Rate -		Will: On sust	will: On sustainable charcoal production:
week			a. Undertake baseline assessment of existing charcoal producers technical and organisational capacity.
			b. Training of 500 charcoal cooperative members in cooperative management, improved charcoal production technologies, licensing and permitting for tree cutting and charcoal production, and marketing of certified green charcoal, if found feasible (under Outcome 2).
			c. Undertake market analysis to better understand the demand and supply of charcoal in the project area, and to design activities that will boost the value and accessibility to the potential markets.
			d. Supply wood and charcoal processing equipment (mobile sawmills, improved mobile kilns and storage/transport facilities)
	мен на		e. Undertake field evaluation on uptake of improved technologies, on operational experiences and the efficiency of the kilns and quality test of the charcoal Follow-up to secure uptake of improved kilns (as part of monitoring, in conjunction with Outcome 2);
		On imp	On improved cookstoves;
	91.444 (J.1244), U	ä	Undertake an assessment of cooperatives dealing with cookstoves and technicians producing or interested in producing cookstoves;
		p.	Design and implement a program to provide subsidized cookstoves, through the cooperatives. Program should include agreements on terms of disbursement from the coop to households, training on effective use and maintenance of cookstoves, etc.;
		స	Assess their training needs and provide relevant training (under Outcome 2)

12.4 ANNEX 4: TERMS OF REFERENCE

Terms of Reference for the Project Board

The Project Board (PB) will serve as the project's decision-making body. It will meet according to necessity, at least twice each year, to review project progress, approve project work plans and approve major project deliverables. The PB is responsible for providing the strategic guidance and oversight to project implementation to ensure that it meets the requirements of the approved Project Document and achieves the stated outcomes. The PB's role will include:

- a. Provide strategic guidance to project implementation;
- b. Ensure coordination between various donor funded and Government funded projects and programmes;
- c. Ensure coordination with various Government agencies and their participation in project activities;
- d. Approve annual project work plans and budgets, at the proposal of the Project Manager;
- e. Approve any major changes in project plans or programmes;
- f. Oversee monitoring, evaluation and reporting in line with GEF requirements;
- g. Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- h. Negotiate solutions between the project and any parties beyond the scope of the project;
- i. Ensure that UNDP Social and Environmental Safeguards Policy is applied throughout project implementation; and, address related grievances as necessary.

These terms of reference will be finalized during the Project Inception Workshop.

Terms of Reference for the Technical Advisory Committee (TAC)

The TAC will provide technical advice and inputs relating to project implementation and will be chaired by the Project Director with support from the Project Coordinator. The members of the TAC will consist of representatives from Government Ministries MoE, MINAGRI, , REMA, RWFA, FONERWA, UNDP, other relevant Government Agencies, research and educational organizations, NGOs (including IUCN/WRI), technical experts and other relevant stakeholders to be agreed by the Project Board. Technical experts may be invited in to discuss specific issues. Indicative Terms of Reference are as follows. These will be reviewed by the Project Board during project inception and may be extended as necessary.

- Review planned activities and ensure that they are technically sound and that, wherever possible, there is integration and synergy between the various project components during planning and implementation;
- Promote technical coordination between institutions, where such coordination is necessary and where opportunities for synergy and sharing of lessons exist;
- Provide technical advice and guidance on specific issues concerning illegal and unsustainable wildlife trade;

- Share information on project progress and lessons learned with related stakeholders at the national level;
- The TAC or a subset of its members may be requested to undertake specific project-related tasks, such as preparing or reviewing analytical reports, strategies and action plans, etc.;
- Other tasks as indicated by the Project Board

Terms of Reference for Key Project Staff

Project Director

Background

The Project Director (PD) is the Deputy Director of REMA, who will be accountable to the Ministry of Environment and UNDP for the achievement of objectives and results in the assigned Project. The PD will be part of the Project Steering Committee and answer to it. The PD will be financed through National Government funds (co-financing), whose appointment will be made by the Director General of REMA, in consultation with the UNDP CO.

Duties and Responsibilities

- Serve as a member of the Project Board.
- Supervise compliance with objectives, activities, results, and all fundamental aspects of project execution as specified in the project document.
- Supervise compliance of project implementation with Ministry of Environment policies, procedures and ensure consistency with national plans and strategies.
- Facilitate coordination with other organizations and institutions that will conduct related FLR, PA, SLM/SFM and household energy activities in the same landscapes or same themes from elsewhere in the country and the region, especially related to the projects outlined in the partnerships section of the Prodoc.
- Participate in project evaluation, testing, and monitoring missions.
- Coordinate with National Governmental representatives on legal and financial aspects of project activities.
- Coordinate and supervise Government staff inputs to project implementation.
- Coordinate, oversee and report on Government co-financing inputs to project implementation.

Project Manager

Background

The Project Manager (PM), will be locally recruited following UNDP procedure, with input to the selection process from the Project partners. The position will be appointed by the project implementing agencies and funded entirely from the Project. In addition to the ToR for the Project Manager outlined in Annex 3, the PM will be responsible for the overall management of the Project, including the mobilisation of all project inputs, supervision over project staff, consultants and sub-contractors. The PM will report to the PD in close consultation with the assigned UNDP Programme Manager for all of the Project's substantive and administrative issues. From the strategic point of view of the Project, the PM will report on a periodic basis to the Project Board, based on the PD's instruction. Generally, the PM will support the PD who will be responsible for meeting Government obligations under the Project, under the NIM execution modality. The PM will perform a liaison role with the Government, UNDP and other UN agencies, CSOs and project partners, and maintain close collaboration with other donor agencies providing co-financing. The PM will work closely with the Project Implementation Unit Coordinators.

Duties and Responsibilities

• Plan the activities of the project and monitor progress against the approved work-plan.

- Supervise and coordinate the production of project outputs, <u>as outlined in the overview of</u> consultants in Annex 3, and in line with the project document, in a timely and high quality fashion.
- Coordinate all project inputs and ensure that they are adhere to UNDP procedures for nationally executed projects.
- Supervise and coordinate the work of all project staff, consultants and sub-contractors ensuring timing and quality of outputs.
- Coordinate the recruitment and selection of project personnel, consultants and sub-contracts, including drafting terms of reference and work specifications and overseeing all contractors' work.
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments, or reimbursement using the UNDP provided format.
- Prepare, revise and submit project work and financial plans, as required by Project Board and UNDP.
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports, submitted on a quarterly basis.
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log.
- Liaise with UNDP, Project Board, relevant Government agencies, and all project partners, including donor organisations and CSOs for effective coordination of all project activities.
- Facilitate administrative support to subcontractors and training activities supported by the Project.
- Oversee and ensure timely submission of the Inception Report, Project Implementation Report, Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF and other oversight agencies.
- Disseminate project reports and respond to queries from concerned stakeholders.
- Report progress of project to the steering committees and ensure the fulfilment of PSC directives.
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally.
- Assist community groups, municipalities, CSOs, staff, students and others with development of essential skills through training workshops and on the job training thereby increasing their institutional capabilities.
- Encourage staff, partners and consultants such that strategic, intentional and demonstrable efforts are made to actively include women in the project, including activity design and planning, budgeting, staff and consultant hiring, subcontracting, purchasing, formal community governance and advocacy, outreach to social organizations, training, participation in meetings; and access to program benefits.
- Assists and advises the Project Implementation Units responsible for activity implementation in the target sites.
- Carry regular, announced and unannounced inspections of all sites and the activities of the Project Implementation Units.

Required skills and expertise

- A university degree (MSc or PhD) in a subject related to Forest or natural resource management or environmental sciences.
- At least 10 years of experience in natural resource management (preferably in the context of Forestry, FLR and SLM).
- At least 10 years of demonstrable project/programme management experience.
- At least 10 years of experience working with ministries, national or provincial institutions that are concerned with natural resource and/or environmental management.

Competencies

- Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.
- Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies.
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project.
- Ability to coordinate and supervise multiple Project Implementation Units in their implementation of technical activities in partnership with a variety of subnational stakeholder groups, including community and Government.
- Strong drafting, presentation and reporting skills.
- Strong communication skills, especially in timely and accurate responses to emails.
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search.
- Strong knowledge about the political and socio-economic context related to FLR and PA issues in Rwanda, household energy, private sector engagement, biodiversity conservation and law enforcement at national and district levels.
- Excellent command of English and local languages. Operation in French will be an added advantage.

Project Assistant

Under the guidance and supervision of the Project Manager, the Project Assistant will carry out the following tasks:

- Assist the Project Manager in day-to-day management and oversight of project activities;
- Assist the technical entity responsible for M&E in matters related to M&E and knowledge resources management;
- Assist in the preparation of progress reports;
- Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by project consultants and other PMU staff;
- Provide PMU-related administrative and logistical assistance.

The Project Assistant will be recruited based on the following qualifications:

- A Bachelor's degree or an equivalent qualification;
- At least five years of work experience preferably in a project in the environment sector. Previous experience with UN project will be a definite asset;
- Very good inter-personal skills;
- Proficiency in the use of computer software applications especially MS Word and MS Excel.
- Excellent language skills in English (writing, speaking and reading) and in local languages. Operational in French will be an added advantage.

Project Accountant

Under the guidance and supervision of the Project Manager, the Project Accountant will have the following specific responsibilities:

• Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager;

- Review project expenditures and ensure that project funds are used in compliance with the Project Document and GoR financial rules and procedures;
- Validate and certify FACE forms before submission to UNDP;
- Provide necessary financial information as and when required for project management decisions;
- Provide necessary financial information during project audit(s);
- Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues;
- Consolidate financial progress reports submitted by the responsible parties for implementation of project activities;
- Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports.

The Project Accountant will be recruited based on the following qualifications:

- A Bachelor's degree or an advanced diploma in accounting/ financial management;
- At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset;
- Proficiency in the use of computer software applications particularly MS Excel;
- Excellent language skills in English (writing, speaking and reading) and in local languages.

12.5 ANNEX 5: UNDP SOCIAL & ENVIRONMENTAL SCREENING PROCEDURE

12.6 ANNEX 6: STAKEHOLDER ENGAGEMENT PLAN

See Annex 11 - Stakeholder Analysis Baseline Report

12.7 ANNEX 7: GENDER ANALYSIS AND ACTION PLAN

See separate document - Gender Assessment Baseline Report

12.8 ANNEX 8: UNDP RISK LOG

#	Description	Date Identifie d	Typ e	Impact & Probabili ty	Countermeasures / Mitigation Measures	Submi tted, updat ed by	Last Updat e	Own er	Status												
				P = 3	The project is oriented towards meeting both short-term livelihood																
	Short term economic			I = 3	needs (increased food production, clean energy, household				Likely increase												
	and livelihood considerati			Moderate	incomes) and securing long-term needs (ecosystem restoration,				due to high population												
1	ons may take precedence over long term gains	Oct-18	Stra tegi c		reduce vulnerability by increasing resilience of agriculture and livelihoods). Under outputs 3.2, 3.3 and 3.4,			PSC	growth and continued dependenc e on												
	from landscape restoration				the project will develop and support income generating activities to contribute to meeting				agricultur e, high poverty levels.												
						immediate needs, particularly of the vulnerable poor.															
	The currently high	Oct-18			P = 3	Component 1 is set up to reduce this risk. The project will utilize an															
	political support for FLR at the		Ope Oct-18 rati onal	rati	rati	~ ;	· · ·	· · ·	· · ·	· · ·			· · ·	~ ;	Ope -	I = 3	existing coordination mechanism – the Joint Action Development				JADF is currently ineffective due to low
2	national, district and community					Moderate	Forum (JADF), increasing its operational and technical capacities			PSC	alle to tow operation al and technical										
	level may not be enough to overcome				to lead the FLR planning process. Community participation will be secured through the			-	capacity.												

	difficulties of securing cross sector coordinatio n and cooperatio n required for effective FLR planning and implement ation – due to challenges of bureaucrati c processes within each Ministry/se ctor				community planning platforms, namely the Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage).			
	Securing private sector engagemen t may be			P = 3 I = 3	The project will link communities to the New Forest Company and other financial institutions (through cooperatives and			Declining with the entry of the New
3	difficult due to the low levels of economic developme nt at the local level, and limited cash economy	Oct-18	Eco nom ic/st rate gic	Moderate	resource user groups), and work with government to provide incentives to the private sector. Despite this, there is still a slight risk that the model is not fully successful. The project will monitor this carefully and use adaptive management to correct course as issues arise.		Proj ect Man ager / PSC	Forest Company and the introducti on of markets in rural areas (for fruits and other produce).
4	Increase in the frequency and severity of	Oct-18		P = 3 I = 3	The project seeks to restore the ecological integrity of the agro- ecological system within the forest landscape		Proj ect Man ager / PSC	

	extreme weather events in areas beyond those identified as critical in the NAPA. The most urgent climate risks are irregular rainfall, droughts, and floods associated with landslides.			Moderate	restoration approach. This will strengthen the role of ecological infrastructure in providing cost effective adaptation and reducing vulnerability in the face of climate change. Climate smart agriculture, restoring watersheds and adoption of agro-forestry are good ways of adapting livelihoods to effects of climate change. The project will undertake an in-depth			
5	With the gazettemen t of the Kibirizi- Muyira Natural Forests, as well as demarcatio n of boundaries to many remnant forest patches on numerous	Oct-18	Soci al	P = 2	Environmental and Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environmental and Social Management Plan (ESMP) will be prepared and implemented to ensure that the project meets its obligations under UNDP's SES, as related to this and all other risks, as determined necessary.		PM U, PSC	Unknown for now, will be establishe d during the inception phase and reported in
	hill-tops, community			I = 3				the first PIR
	rights of access may be restricted in specific areas.			Moderate	The project has proposed Community Based Forest Management (under Output 3.2) with at least ten community groups, selected on the basis of proximity to the natural			

forests (especially those living in the former corridor connecting the Kibiri and Muyira forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their livelihoods, and under	
corridor connecting the Kibiri and Muyira forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their	
Kibiri and Muyira forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their	
forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their	
forests), the pressure their livelihoods exert on the forests as well as the importance of the forest resources to their	
their livelihoods exert on the forests as well as the importance of the forest resources to their	
importance of the forest resources to their	
importance of the forest resources to their	
resources to their	
the overall guidance of	
the FLR plans. These	
co-management groups	
will be facilitated to	
develop and sign co-	
management agreements	
with MoE detailing the	
roles and responsibilities	
of all parties involved,	
sustainable harvesting	
regimes and benefits to	
be accrued by the	
communities. To the	
extent possible, these co-	
management agreements	
will take gender issues	
on board. Part of the	
communities'	
responsibilities will be	
afforestation of the	
degraded forest with	
indigenous trees and	
clearing Lantana	
<i>camara</i> from the natural	
forests and buffer zones.	
These tasks will utilize	
the Umurenge	
Programme (VUP),	
which provides cash	
transfers as payment for public works. In	
youth groups (both men	
and women) will be	
supported to convert Lantana Camara into	
charcoal briskets. Part of	
the benefits for the	
communities will be	
harvesting of NTFPs	

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6	of personal and institutiona l skills for forest restoration – and inadequate awareness of rights and responsibil ities in the use of natural	Oct-18	Soci al	P = 2	Undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environmental and Social Management Plan (ESMP) will be prepared and implemented to ensure that the project meets its obligations under UNDP's SES, as related to this and all other risks, as		PM U, PSC	with the current focus on FLR in the country, with several donor and governme nt financed projects building capacity and awareness.
	There are low levels				from the natural forests, under sustainable use plans. The project will provide training on improved harvesting techniques, processing, packaging and marketing, to those engaged in NTFP value chain (financed under outcome 2). The project will also link individuals and/or groups willing to establish or improve productivity of existing plantations to the New Forests Company (NFC), which will provide seed funding, training and seedlings to engage in tree plantations as a commercial venture. The project will also facilitate interested entrepreneurs to set up tree nurseries, to be financed through low interest loans dispensed through local cooperatives (and subsidized by the project). The project will undertake an in-depth			Declining

resources		determined necessary.			
and forests					
in securing					
livelihoods					
and	I = 3				
advancing					
local		Outcome 2 of the project	×		
economic		has a strong focus on building technical			
developme		building technical capacity at the			
nt		institutional level and			
		providing skills for			
		improved SFM and			
		SLM to individual			
		farmers. The project will			
		implement a capacity			
		building strategy			
		(Outputs 2.1 and 2.2)			
		that will enable both			
		duty-bearers and rights-			
		holders to fulfill their			
		mandates sunder the			
		Forest Landscape			
		Restoration concept. In			
		addition, an awareness			
		raising program will be			
		formulated, and			
	Moderate	disseminated to raise the			
		awareness of especially rights-holders about			
		their roles and			
		responsibilities as well			
		as their entitlements in			
		accessing and utilizing			
		natural resources for			
		securing livelihoods and			
		advancing local			
		economies (under			
		Output 2.3). Similarly,			
		their responsibilities in			
		doing so sustainably, so			
		as not to affect similar			
		rights of future			
		generations. In addition,			
		the stakeholder			
		participation plan will be			
		utilized to ensure that all			
		relevant groups			
		participate as expected.			
	1	The project monitoring	ll	1	

7	Women's access to resources could be restricted.	Oct-18	Soci al	P = 2 I = 3 Moderate	system will provide information to undertake adaptive management and provide any additional support which may be deemed necessary to maintain active participation by all relevant groups. The project has formulated a draft gender strategy, based on an initial gender analysis during the PPG. The draft strategy will be refined under output 2.3, to guide project implementation, ensuring that gender consideration is systematized throughout the implementation process. That will be done in coordination with the ESIA/ESMP preparation, to ensure synergies and alignment.		PM U, PSC	Declining with the current governme nt focus on gender equality and women's empower ment, with several programm es under the ministry responsibl e for gender to address
8	The project will encourage harvesting of non- timber forest products in natural forests (but not harvesting of timber); it will involve developme nt of plantations on 1,000 ha and	Oct-18	Env iron men tal	P = 2	The gender action plan (GAP) is in Prodoc Section 3.5. To avoid these risks, the project work on afforestation, plantation establishment and harvesting NTFPs is guided by the Forest Landscape Restoration Concept, with risk management measures built into the design. Under output 2.2, the project will facilitate four districts to produce four FLR plans with action plans for implementation. Formulation of the FLR plans will follow the methodology introduced by the World Resources		PM U, PSC	historical inequalitie s Unknown for now, will be establishe d during the inception phase and reported in the first PIR

	1			1	1	,
reforestatio		Institute (WRI) and				
n of		IUCN and already tested				
degraded		in the country by the				
natural		former Ministry of				
forests and		Natural Resources ^[1] , as				
the buffer		recently modified and				
		applied for the Gatisbo				
zones.						
These		FLR baseline conditions				
measures		assessment ^[2] .				
pose risks		Plantation establishment				
of		is recognized as one				
overharves		form of restoration		-		
ting natural		exercise under the forest				
forests or		landscape restoration				
introducin		concept, which builds in				
g invasive		risk management				
species						
during		will therefore be sited				
restoration		away from areas of				
		critical habitats and will				
		not lead to the				
		conversion of natural				
		habitats. They will not				
		be sited in areas recently				
		degraded (hence can be				
		afforested). In line with				
		the FLR guidelines, the				
		project will ensure that				
		the plantations are				
	1 = 3	environmentally				
		appropriate ^[3] ; socially				
		beneficial ^[4] ,				
		economically viable ^[5]				
		and utilize native species				
		wherever feasible,				
		giving preference to				
		small-scale community-				
		level forest management				
		approaches. In addition,				
		the UNDP SESP				
		guidelines on plantations				
		will follow ensuring that				
		there will be no				
		introduction of known				
		invasive species; no		1		
		, introduction of any alien		1		
		species without risk				
		assessment; and that				
		possibility of accidental				
		introduction of invasive		· ·		
			L	I	J	

				Moderate	alien species will be considered and managed.		
9	With the gazettemen t of the Kibirizi- Muyira Natural Forests, as well as demarcatio n of boundaries to many remnant forest patches on numerous hill-tops, there is a very low risk of physical displaceme nt of people who may have encroached the natural forests (especially those who may have cultivated fields and charcoal burning activities in restricted use areas).	Oct-18	Soci al		The project will undertake an in-depth Environmental and Social Impact Assessment (ESIA) in the first year of implementation, based on which an Environmental and Social Management Plan (ESMP) will be prepared, including a resettlement plan and an Indigenous Peoples/Ethnic Minority plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. Any resettlement plan would be in line with UNDP's SES and the GoR Imidugudu (village) settlement policy, a disaster risk reduction intervention which resettles people in disaster prone areas to government planned villages, provided with modern amenities (water, electricity, one cow per household, biogas, schools, community halls, etc.).	PM U, PSC	Unknown for now, will be establishe d during the inception phase and reported in the first PIR

12.9 ANNEX 9: RESULTS OF THE CAPACITY ASSESSMENT OF THE PROJECT IMPLEMENTING PARTNER AND HACT MICRO ASSESSMENT

See separate document

12.10 ANNEX 10: ADDITIONAL AGREEMENTS

LOA attached between REMA and UNDP.

12.11 ANNEX 11: CARBON EMISSIONS CALCULATIONS BY E.X.A.C.T

See separate document