MINISTRY OF ENVIRONMENT

ANNUAL REPORT 2021-22

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LIST OF ABBREVIATIONS

ENR: Environment and Natural Resources

GBS: Gender Budget Statement

GCCA+: Global Climate Change Alliance Plus

GDE: Gender Distribution Employment

MINAGRI: Ministry of Agriculture and Animal Resources

MINALOC: Ministry of Local Government

MINECOFIN: Ministry of Finance and Economic Planning

MoE: Ministry of Environment

NDCs: National Determined Contributions

NST1: National Strategy for Transformation

REMA: Rwanda Environment Management Authority

RLMUA: Rwanda Land Management and Use Authority

RWFA: Rwanda Water and Forestry Authority

SDGs: Sustainable Development Goals

SDMR: Sustainable Development Mining in Rwanda.

SEA: Strategic Environment Assessment

SIDA: Swedish International Development Cooperation Agency

SWG: Sector Working Group

UNDP: United Nations Development Program

UN-ESCAP: Gender, the Environment and Sustainable Development in Asia and Pacific

WB: World Bank

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FOREWORD

Rwanda has put the environment at the heart of its development agenda for more than two decades. The aim is to contribute to enhance climate resilience, ending plastic pollution, promoting biodiversity conservation -, restoring degraded ecosystems and developing global partnership to address climate change and keep alive the goal of limiting the average global temperature rise below 1.5 degree Celsius.

It is inherent that fighting climate change effects is for all of us and there is no doubt that we need to move faster to address the raising concern of climate change and an increasing trend of emissions if the pace remains "business as usual" where countries continue practicing deforestation, burning oil, gas, water pollution among others. Thus, working together will help to address climate change and keep alive the goal of limiting average global temperature rises below 1.5 degrees Celsius. We need to fast-track scale up and disburse funds for climate resilient projects, invest in restoring degraded ecosystems to reduce the impact of the climate crisis and slow biodiversity loss and to engage private sector players and vulnerable groups in developing and implementing policies and initiatives to protect the environment.

Rwanda has mobilised efforts to bring to the attention of the world the relevancy of ending plastic pollution and recognizes the contribution of ratification of the UNEA 5.2 resolutions. It also acknowledges the role of different parties to the regional and global commitments made during various conferences/meetings such as Stockholm+50, COP 26, COP 27, APAC, CHOGM 2022 to mention a few. The implementation of these resolutions will make a significant step towards a climate policy dialogue to achieve climate neutrality and initiate co-operation with the private sector, civil society among other key stakeholders and foster inclusive and locally led approach for climate action for the sake of an ultimate carbon neutral economy and a climate resilient world.

The Ministry of Environment is thankful to stakeholders who contributed to the realization registered during the concluded FY 2021/22, reflected in the annual report. Rwanda will continue to rehabilitate degraded ecosystems beginning with wetlands identified in the City of Kigali, degraded forests country-wide, enhance soil protection against erosion, rehabilitate degraded catchments, ensuring optimal and rational utilisation of Land, while promoting climate finance as well as partnership.

Dr Jeanne d'Arc MUJAWAMARIYA

Minister of Environment

PROGRESS ON NST1



PROGRESS ON NST1

The NST1 growth trajectory will depend significantly on the timing of key contributions from different sectors. However, looking at 2021 alone, the forestry sector contributed to **6%** of the country's GDP (NISR, GDP Report: 2021-22).

Rwanda's efforts therefore to manage existing forests and restore areas of the country and achieve its Bonn Challenge commitments have led to 30.4% of the country being covered with forests from baseline of 29.8% (**Forestry cover map, 2019**), this implies a 100% progress against the NST1 target.

The percentage of public forest plantations allocated to private operators reached 38.45% against the target of 62.4% in 2021/22 and to reach 80% in 2023/24 from baseline of 14.1%. This implies a 62% progress against the current target and a 60% progress made from the baseline to date.

With aim to reduce households using firewood for cooking to 42% as NST1 target, the **House hold Census, 2022** shows that 76.1% of households still use firewood for cooking; this implies a 19% progress towards the NST1 target. Energy sector as the lead on this target, among other measures to expediate progress, is speeding up the coordination of key stakeholders to fast-track areas to reduce Bio Mass usage with priority to big users e.g. Schools, Prisons, Police among others.

Table 1

NST1 Progress against targets by 2024			
Key interventions	Baseline	Target	Current status
Forest coverage of total surface area	29.8%	30%	30.4%
% of public forest plantation allocated to private operators	14.1%	80%	38.5%
Percentage of households using firewood for cooking	79.9%	42%	76.1%

Strengthen land administration and management to ensure optimal allocation and use of land.	- NLUDMP 2011 Un-functional. - Land administration information system version (LAIS)	- Develop and implement the NLUMP 2050 - Land administration information system version(LAIS) fully functioning	Developed NLUDMP (2020-50) and is being implemented, see status below; -8 Districts land use plans completed (Gicumbi, Gisagara, Nyagatare, Muhanga, Huye & city of Kigali). -8 Districts Land use plans DLUPs (Rulindo,Karongi,Ruhango, Rusizi,Kamonyi, Kayonza,Nyaruguru,Gakenke) development to be completed by end June 2023 -Land administration information system version (LAIS) fully functioning
Develop a project to manage water flows from the volcano region and other rivers to mitigate related disasters and improve water resource management	N/A	Management of Water Flows from Volcano Area	-Study was conducted on Management of Water Flows from Volcano Area. -Flood control measures have been implemented in the Cyuve-Kagere sub-catchment as part of the process to enlarge the water

			drainage channel in the Volcanoes area. -Water retention was completed to mitigate floods in Muhabura, Mbandana, Nyarubande, Muhe and Susa as well as bridges to facilitate crossing gullies in the Volcanoes area.

Table 2

Areas lagging behind & measures to expedite progress				
Key interventions	Baseline	Targets	Current status against targets	Measures to expedite the progress
Percentage of public forest plantation allocated to private operators	14.1%	80%	38.5%	- Quicken the process of negotiation between the government and private operators. - Increase the Privatization Pace.
Percentage of households using firewood for cooking	79.9%	42%	76.1%	-MININFRA as the lead on Biomass energy, is speeding up the coordination of key stakeholders to fast-track areas to reduce Bio Mass usage with priority to big users e.g. Schools, Prisons, Police among others. -Scaling up efforts including promotion of Alternatives to Bio Mass usage - Mass awareness & campaigns

Source: CENR – Backward Joint Sector Review report, 2021-22.

Source: National Household Census, 2022

CHAPTER 1



LEGAL AND REGULATORY INSTRUMENTS

CHAPTER 1: LEGAL AND REGULATORY INSTRUMENTS

A number of legal instruments have been developed, adopted and gazetted in the FY 2021/2022. These include:

1.1 Laws

Law creating and organizing condominiums and setting up procedures for their registration

Law governing biodiversity in Rwanda

Law governing land in Rwanda

Law governing the preservation of air quality and prevention of air pollution in Rwanda

Law on environment

Law relating to the planning of land use and development in Rwanda

Law repealing Organic Law n° 08/2005 of 14/07/2005 determining the use and management of land in Rwanda

1.2 Presidential Orders

Presidential order determining the exact number of years of land lease

Presidential Order establishing the National Land Use and Development Master Plan

Presidential order modifying and complementing the presidential order no 30/01 of 29/06/2007 determining the number of years of land lease

1.3 Prime Minister's Orders

Prime Minister's Order determining the supervising organ of the National Fund for Environment

Prime Minister's Order determining the composition, mandate, organization and functioning of the National Water Consultative Committee

Prime Minister's Order on the establishment of the National park and Biosphere Committee

Prime Minister's Order governing environmental protection committees and their members

1.4 Ministerial Orders

Ministerial Order determining modalities for land sublease

Ministerial Order determining modalities of change of land use

Ministerial Order determining other infrastructures intended for commercial purposes

Ministerial Order determining the list of chemicals and other polluting substances that are not permitted

Ministerial Order determining the list of prohibited plains to constructions

Ministerial Order determining the modalities of land sharing

Ministerial Order determining the reference land prices outside the Kigali City

Ministerial Order determining types of servitude

Ministerial Order establishing modalities of inspecting companies or activities that pollute the environment

Ministerial Order establishing special regulations relating to burying toxic wastes

Ministerial Order establishing the list of projects that must undergo environmental audit, instructions and procedures for conducting environmental audit

Ministerial Order establishing the list of projects that must undergo environmental impact assessment, instructions, requirements and procedures to conduct environmental impact assessment

Ministerial Order establishing the list of protected animal and plant species

Ministerial Order establishing the list of works, activities and projects that have to undertake an environment impact assessment

Ministerial Order governing land committees

Ministerial Order governing the importation and exportation of wild animals

Ministerial Order governing the use of substances that deplete the ozone layer or may cause climate change

Ministerial order no 001/MoE/22 OF 31/01/2022 appointing members of the technical committee on dams.

Ministerial Order preventing activities that pollute the atmosphere

Ministerial Order regulating the importation and exportation of ozone layer depleting substances products and equipment containing such substances

Ministerial Order relating to the national report on climate change

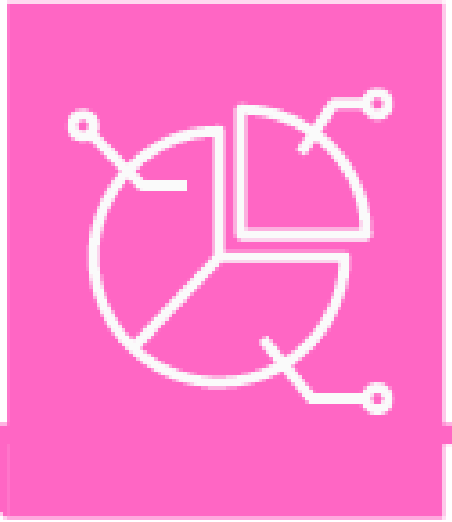
1.5 Ministerial Instructions

Instruction of the registrar of land titles determining the form of freehold land titles and conditional freehold land title

Rwanda Land Reference Prices 2021.



CHAPTER 2



KEY ACHIEVEMENTS REGISTERED IN 2021/22

CHAPTER 2: KEY ACHIEVEMENTS REGISTERED IN 2021/22

2.1 Environment, Water, land and forestry Policy and legal framework development and implementation

2.1 Land

By the time the revised national land policy was approved by the cabinet on June 7th, 2019, there were a number of land related dynamics especially in urban & peri-urban areas that required particular attention as Rwanda embarked on its long development journey. Among these areas (with current progress) include the following;

Shift from a district boundary-based planning to a sectorial and land suitability-based planning. At central level, the policy proposes two levels of land use master plans, namely the revision of National Land Use and Development Master Plan and the Sector Land Use Master Plan, and land use plans at local level (districts and CoK). Under this policy, all the sectors linked to land management system are ready developing their Sector Land Use Master Plans with reference to the National Land Use and Development Master Plan. These plans have informed the development of other sub-sectors, which include the Kigali City and districts land use plans.

The Kigali City master plan has been developed and 8 districts have already developed their respective land use plans based on the national land use and development master plan, whilst the remaining districts Land use plans development as well as sector specific land use master plans to be completed before the end of NST1.

Emphasis has been put on how to secure and demarcate land to support strategic investments with measures for efficient use of the available land based on the national land use and development master plan and sector level land use master plans. The Ministry in charge of Environment is now the custodian of all state-owned land while other ministries and agencies are considered as land users.

Policy orientation to strengthen the current land administration system and effective administration is on-going, though progress is sighted in the ministerial orders already drafted on; Land registration, registration of land titles, reduction of land related disputes, determining categories of land subject to freehold and modalities for granting free hold and the published land reference prices among others. These have paved cleared direction on the policy actions' implementation.

Integrated and sustainable land management to maximize reliable, efficient and productive investments

With respect to the national land policy 2019, efficient and sustainable land management builds on efficient land use planning, surveying and mapping, land use management and land administration.

2.6.1. Development, implementation and monitoring of Land Use Plans

District Land Use Plans elaboration

The District Land Use Plan process started when NLUDMP was broken down in details to the district level. DLUP is a split of the NLUDMP at the district level, where land within the entire district was zoned with a specific use in details. The DLUP covered urban and rural areas to ensure that no land inside the district boundaries is left out of this plan. The District Land Use Plan aimed to allocate land to different uses for the concerned district by clustering all thematic areas. When DLUPs are finalised, these are expected, to; (i) Optimize land use allocation and provide the better balance of land to different sectors, (ii) Effective use of land and its management, (iii) Effective use of resources, (iv) Guide future development, (v) Promote more desired social and environmental outcomes.

The elaboration of DLUPs is taking into consideration the role of stakeholders and gving priority their consultations along the process. The consultations are being done with (i) Relevant institutions through technical focal persons, Technical Advisory Group (TAG) and Economic Cluster, (ii) Local level authorities, (iii) Community, (iv) Private sector and non-governmental groups, (v) Media, among others.



Picture above (Archive): Land Use Plans Consultations in Muhanga District

validated by their respective district councils submitted to the Ministry of Finance and Economic Planning (MINECOFIN) for review before submission to the Cabinet for approval.

Muhanga District Land Use Plan

The DLUP of Muhanga district took into consideration of different Economic Specializations namely Mining Processing, Trade (regional trade center), Industry, Logistics and Tourism (meetings, incentives, conferences and exhibitions – MICE). In brief the allocation of land was made as follows: (i) Agriculture and livestock (34,265 ha: 53%), (ii)Forests and conservation (34,265 ha: 20.5%), (iii)Urbanization which covers the Built-up areas & Infrastructure - including all settlements & roads (16,247 ha: 25.1%) and (iv)Water, wetlands and their buffer zones (3,489 ha: 5.4%).

Huye District Land Use Plan

The Economic Specialization that guided the elaboration of the DLUP in Huye are; Education and Research, Cultural tourism, Trade/retail and Agro-processing and manufacturing and it allocated land for the following uses; Agriculture and livestock (29,016 ha: 49.8%), Forests and conservation (13,145 ha: 22.5%), Urbanization also covering the Built-up areas & Infrastructure - including all settlements & roads (9,442 ha: 16.179%), Water, wetlands and their buffer zones (6,689 ha: 11.5%).

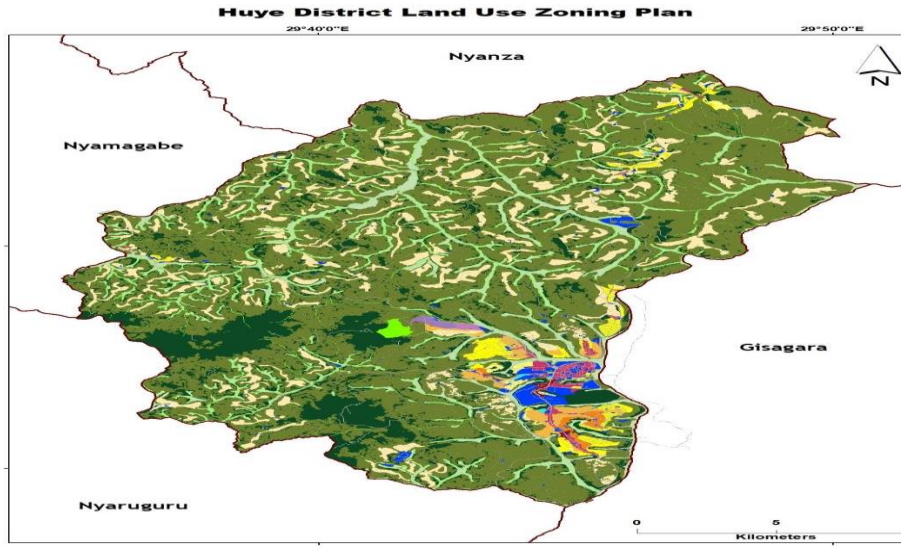


Figure 1: Huye District Land Use Plan (DLUP)

Nyagatare District Land Use Plan

The DLUP in Huye focused on the following four main economic areas namely Commercial Agriculture and livestock, Eco-Tourism Development /Akagera National Park, Mining processing and Manufacturing and Trade.

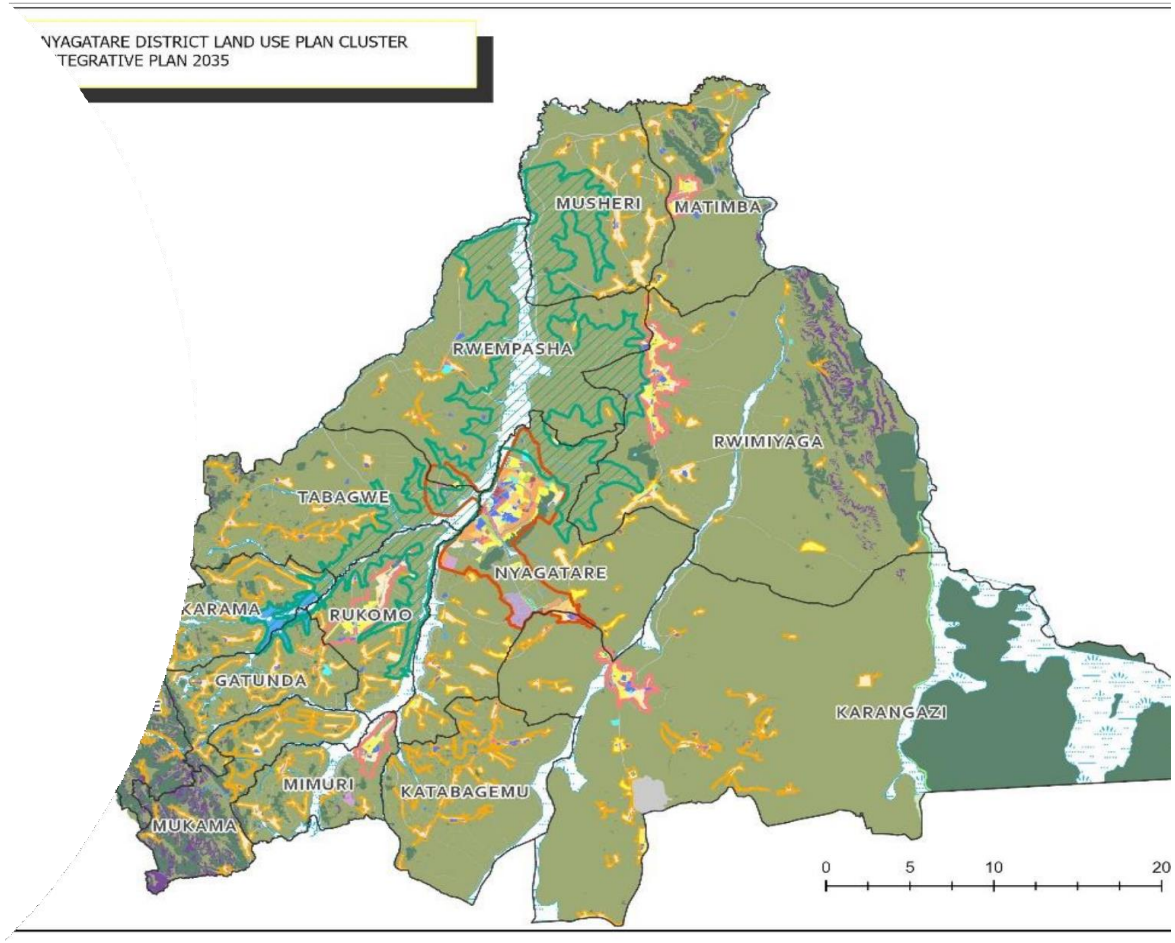


Figure 2: Nyagatare District Land Use Plan (DLUP)

As a secondary city to the CoK; the DLUP of Nyagatare district considered urbanisation and settlement important and gave the district 5 Rurban centers namely (Matimba, Rwimiyaga, Karangazi, Mimuri, Rukomo Rurban center and 170 rural settlement

sites. The general allocation of land gives a big share to agriculture and livestock with 131,916 ha (68.5%) followed by Forests and conservation with 33,318 ha (17.3%), Urbanization with built up areas & Infrastructure – including all settlements & roads which has 16,559 ha (8.627%) and Water, wetlands and their buffer zones 10,781 ha (5.68%).

Gicumbi District Land Use Plan

Gicumbi district main economic activities that the DLUP has focused on include Agriculture, Cross border trade and Tourism development considering Heroic tourism and Lake Muhazi eco-tourism. As far as urbanisation is concerned, the DLUP has one main urban center, two Rurban centers and 131 rural settlement sites.

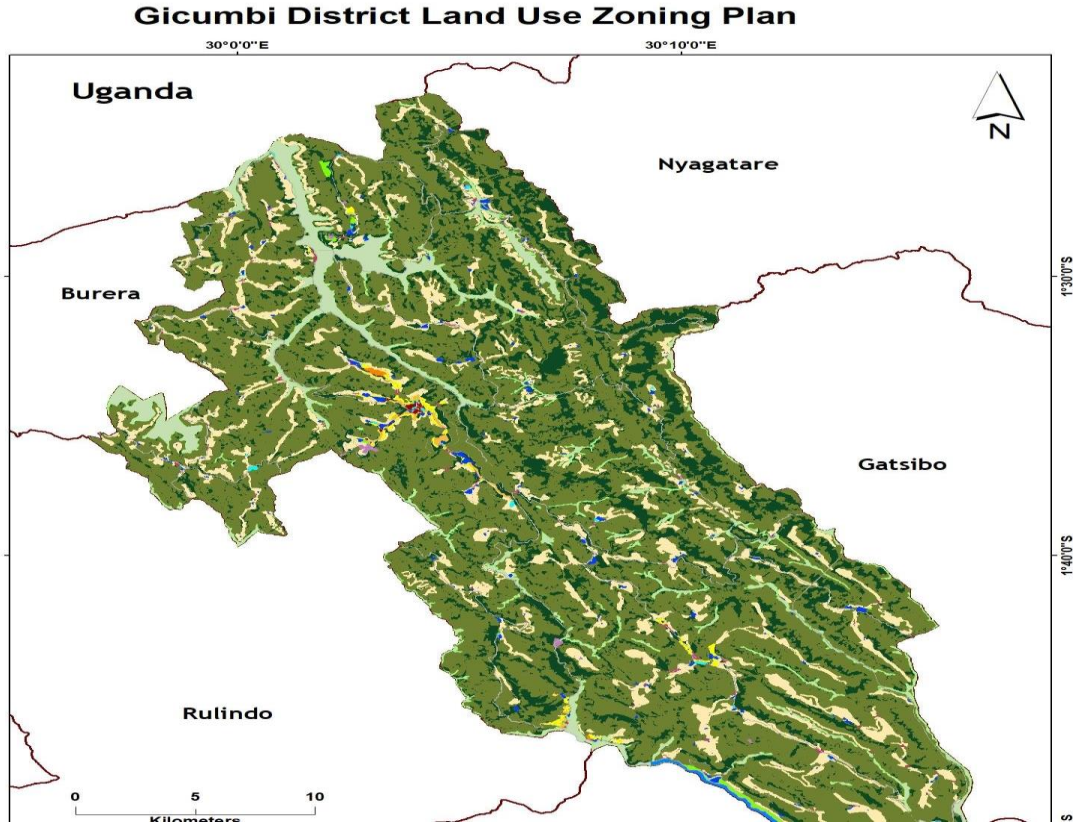


Figure 3: Gicumbi District Land Use Plan (DLUP)

The allocation of land as per the DLUP gave a share of 53.8% to agriculture and livestock equivalent to 44,548 ha, seconded by Forests and conservation: 21,659 ha (26%), followed by Urbanization (Built up areas & Infrastructure- including all settlements & roads): 11,207 ha (13.53%) and finally Water, wetlands and their buffer zones: 5,403 ha (6.53%).

Gisagara Districts Land Use Plan

The DLUP highlights three main economic use which are Agriculture, Cross border trade and Sport and Cultural heritage Tourism.

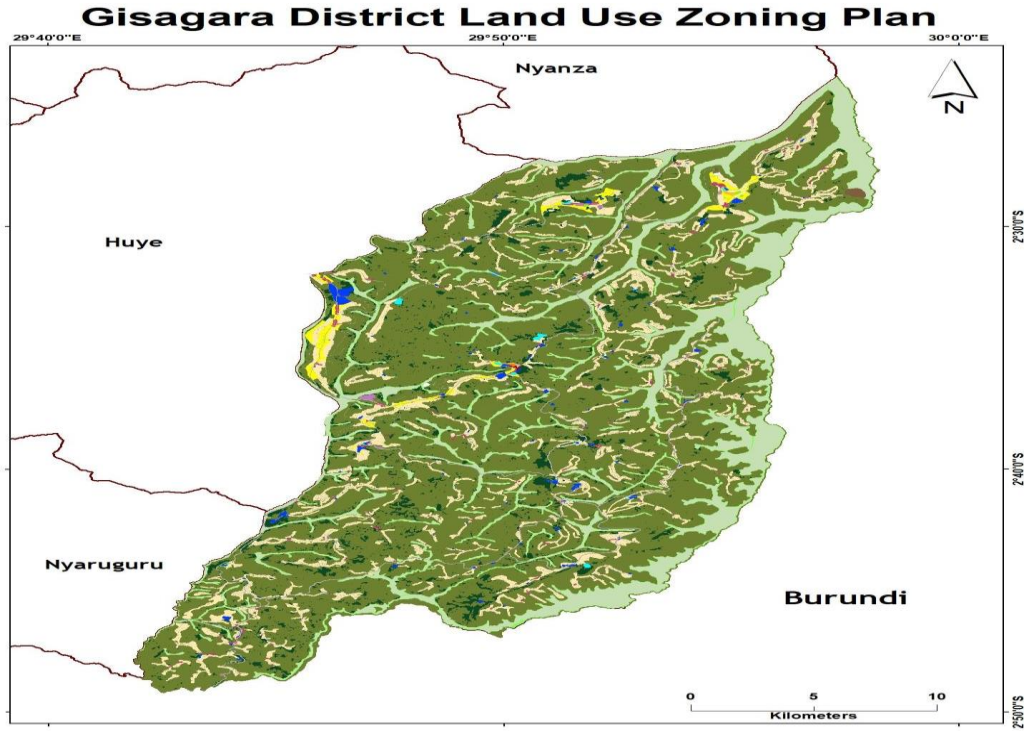


Figure 4: Gisagara District Land Use Plan (DLUP)

Ngoma and Kirehe District

This Land Use Plan prioritised agriculture and livestock with 40,251 ha (59.57%), Forests and conservation with 7,680 ha (11.366%), Urbanization (Built up areas & infrastructure – including all settlements & roads): 8,574 ha (12.689%) and Water, wetlands and their buffer zones: 5,403 ha (16.374%). Looking at urbanisation, the DLUP provides one urban center, 4 rurban centers which are Save, Kibirizi, Mamba and Gikonko rurban centers and 145 rural settlement sites.

Apart from the completed DLUPs, the development of more DLUPs are ongoing in Kamonyi, Rulindo, Karongi, Ruhango, Rusizi and Kayonza whereby evaluation of 6 tenders for consultancy services for elaboration district land use plans are ongoing, the hiring of consultants for elaboration of Bugesera District Land Use by Rwanda Housing Authority through ENABLE funding and the elaboration of Nyaruguru and Gakenke both are at inception level (budget for both districts were availed and contracts awarded by districts with supervision of NLA). Also in this setting, 382 sector land managers and 30 staff from district one stop centers were trained in land readjustment guidelines, zoning regulations and NSDI portal.

Web GIS for DLUPs in place through NSDI framework for public access

Spatial Data Infrastructure (SDI) denotes the relevant base collection of technologies, policies, standards, and institutional arrangements necessary to acquire, process, store, distribute, and improve the utilization of geospatial data – from many different sources and for a wide group of potential users. Rwanda has taken another stride in digital economic planning and development following the introduction of Geographic Information Systems (GIS), raising her ranks as the fastest growing technology and investment hub in the region. The information is used by the government and the private sector to plan effectively.

The National Spatial Data Infrastructure (NSDI) was envisioned as a way of enhancing the accessibility, communication, and use of geospatial data to support a wide variety of decisions at all levels of society in Rwanda. The goals of the NSDI Hub are to reduce redundancy in geospatial data creation and maintenance, thus increasing resource efficiency, standardization, and informed decision making. This NSDI hub was launched in November 2021 as a national open platform to host and publish geospatial data and information relevant to sectoral planning and implementation.

The hub contains mainly harmonized and standardized fundamental geospatial datasets from different institutions. It also hosts the Land-Use and development Master plans at National and Kigali City/District levels as well as the recent Topographic and thematic Maps and Story Maps. Rwanda Spatial Data Infrastructure is a result of partnerships with public and private institutions involved in geo-data production and use, and it was developed and managed by the Rwanda's National Land Authority.

In this setting; during the FY 2021/22; Spatial data applications and topographic maps were created for public access currently accessible through the following master plans: Land Use Plans (City of Kigali Master Plan Secondary cities in Urban areas, Gicumbi ,Gisagara, Muhanga ,Nyagatare, Huye, Karongi, Rulindo, Kirehe ,Rusizi, Kamonyi and Bugesera planned land use are accessible on NSDI web GIS) Pages: https://geodata.rw/portal/apps/sites/#/nsdi/pages/nludmp2020-2050

Land re-adjustment guidelines .

The land readjustment guidelines were developed in collaboration with the CoK, RHA, MININFRA, RALGA and the secondary cities districts. The guidelines were approved and disseminated throughout all districts and to ensure their effective use, all district one stop centers and sector land managers were trained in order for them to start using them during the elaboration of detailed physical plan sites.

2.6.2. Integrated and harmonized land information in a paperless land register for an optimized land management

During the FY 2021/22, 10 District Land Use Plans have been aligned with NLUDMP and integrated into LAIS namely Gakenke, Karongi, Rutsiro, Burera, Nyabihu, Nyamagabe, Gatsibo, Nyamasheke, Ngoma and Ruhango. This marks a big milestone since, so far, all 30 district land use plans have been integrated into LAIS for efficiency land use planning. All Planned land use information are currently accessible through mobile application that is *651# and landinformation.rlma.rw based on existing information on district land use master plans.

2.6.3. Improved security of land tenure towards a fully updated land register

Land demarcation errors and boundaries issues corrected in 13 districts

For the sake of improving the security of land tenure, it is indeed to correct issues related to land boundaries. In this regard, 1,744 parcel boundaries were corrected in Musanze (486), Gisagara (526), Gishwati (732) and 6,829 parcels were demarcated in Rusizi district in Bugarama sector. The land commission also recovered 1,463 Ha of state land in Nyagatare, Gatsibo Kirehe and Kayonza Districts. And inventories of land titles were handed over to the following districts (71,892 Rubavu,123,891, Nyabihu and 99,337 titles in Rutsiro District).

Land transfers processed and approved to land titles

The land transfer is one of the main land services offered by the NLA throughout all districts in all sectors. During the last FY 2021/22, ninety-one thousand one hundred ninety-one (91,191) land transfers were processed, approved and issued to the land owners. This was achieved thanks to daily operations done at sector level and during land weeks. In this year, land weeks were conducted in 14 districts namely Kamonyi, Rulindo, Gicumbi, Gakenke, Gasabo, Nyarugenge, Bugesera, Rwamagana, Kayonza Nyagatare, Muhanga, Nyamagabe, Nyaruguru, and Ruhango District and all backlogs received during lockdown were cleared. The management of the NLA also has conducted field visit to various sector land managers with the aim of improving land service delivery. In this setting also high-level meeting including MINALOC, MOE, City of Kigali and provinces on how address land issues and to improve land service.

2.6.4. Moving towards full automation of land register

Efforts have been made for the sake of moving land service towards full automation. In this perspective, the *electronic land title* (E-land title) was developed and Chief Registrar of Land Titles' instructions determining modalities of the issuance of electronic land titles were reviewed and approved and they were gazetted. Moving forward, the new system will eliminate the issuance of physical land title deeds and enable other sectors to rely on digital land certificates to serve citizens in different capabilities.

The implementation of e-Title will accelerate service delivery, reduce the cost associated with the production of titles and address the issue of title loss or damage. The goal is to realise the target of zero trips, and zero paper. Once fully operational, e-Titles will be accessible via the land portal at https://landinformation.lands.rw

2.6.5. Mapping and surveying tools Modernized and operationalized

To allow mapping and surveying activities and make them easy, Continuous Reference Stations (CORS) network of Huye, Nyagatare, Musanze, Kirehe, Kayonza, Rusizi, Gasabo and Rubavu were maintained and the National Spatial Data Infrastructure established. The National Spatial Data Infrastructure portal created https://rwanda.africageoportal.com/ and the NLUDMP was uploaded and DLUPs for 25 districts were published on the NSDI Hub.

2.1.2 Forestry

To enhance the environment and natural resources regulations, the Ministry regularly undertakes the development and revision of regulatory instruments. Over the last FY 2021/22, the Ministry started the drafting of the forest law for which a draft was

submitted to RLRC for review, (ii)Assessment of forestry co-management in Rutsiro and Gicumbi, (iii) issued the Ministerial instructions on Gishwati farms, (iv) disseminated the land law and developed and gazetted 9 orders implementing the land law.

The revised National Forest Policy is in line with national and international development framework and it addresses all aspects of cross-cutting issues that appear in conventions, treaties and regional/international programmes which the Government of Rwanda has committed to. It defines the government's medium to long-term intentions for the development and management of the national forest resources in the following seven policy statements:

The capacity of forest institutions and actors will be enhanced to match the requirements for Sustainable Forest Management (SFM);

Ensure Sustainable Forest Management through the establishment and implementation of integrated forest management plans at all levels;

Private sector will be encouraged to increase their investment in forestry sector;

Appropriate regulatory instruments will be developed and implemented to ensure sustainable and efficient biomass supply;

Biodiversity and ecosystems services and values will be enhanced in accordance with national and international agenda;

Active participation of stakeholders in Sustainable Forest Management to ensure ownership and proper benefit sharing;

The adoption of Agroforestry and Trees Outside Forest (TOFo) techniques will be enhanced to contribute to overall forest resources and agriculture productivity.

2.1.3 Increased sustainability and profitability of forests

2.1.3.1 Percentage of forest coverage to the total surface area increased

The Government of Rwanda targeted to have a forest cover of 30% by 2024. This target has been surpassed by 0.4%, currently the forest cover is at 30.4% (forest cover map of 2019). The efforts are being made to have this forest cover maintained. In this

backdrop, the Ministry of Environment through Rwanda Forestry Authority; during this FY 2021/22; managed to have (i) 1,742 Ha of new forests planted, (ii) 639 ha of bamboo trees, (iii) 782 ha planted along roadsides and (iv) 64,036 ha of agroforestry.



Archive: Part of 3 million bamboo species being planted in Eastern Pronvince of Rwanda

Additionally: 3,202,978 fruits trees were planted.

Table 3: Area of new forests (woodlots) planted by district

Province	District	Area of new forest planted (Ha)
Eastern	Bugesera	64
	Kayonza	98
	Kirehe	509
	Ngoma	145
	Nyagatare	422
	Rwamagana	43
Southern	Gisagara	160
	Muhanga	7
	Nyanza	91
	Ruhango	15

	Kamonyi	97
Northern	Rulindo	81
City of Kigali	Gasabo	10
Grant Total	1,742	

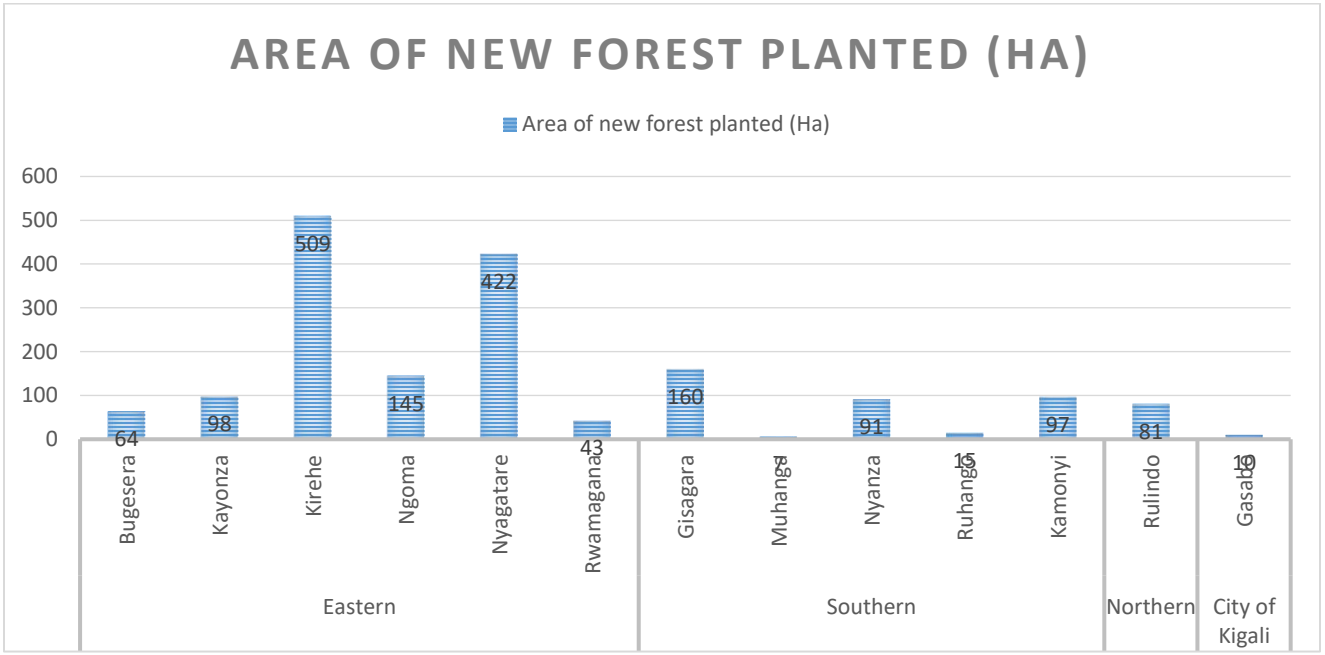


Figure 5: Area of new forests planted

A total area equivalent to 1,742 ha of new forests/woodlots was planted in thirteen districts in Eastern (1,281 ha), Southern (370 ha), Northern (81ha) and CoK (10ha). A big area was planted in Kirehe district (509ha) followed by Nyagatare (422 ha). There were no woodlots planted in the rest 17 districts over the last FY 2021/22.

Table 1: Area of degraded forests rehabilitated by district

Province	District	Area rehabilitated (ha)
City of Kigali	Gasabo	6.5ha
	Nyarugenge	6ha
Eastern	Gatsibo	58.5
	Kayonza	23
	Kirehe	94
	Ngoma	72
	Nyagatare	140
Northern	Rulindo	96.63
	Gicumbi	347
Southern	Huye	151.5
	Muhanga	104
	Nyamagabe	9
Western	Nyamasheke	30
	Rusizi	253
Grand Total	1,391.1	

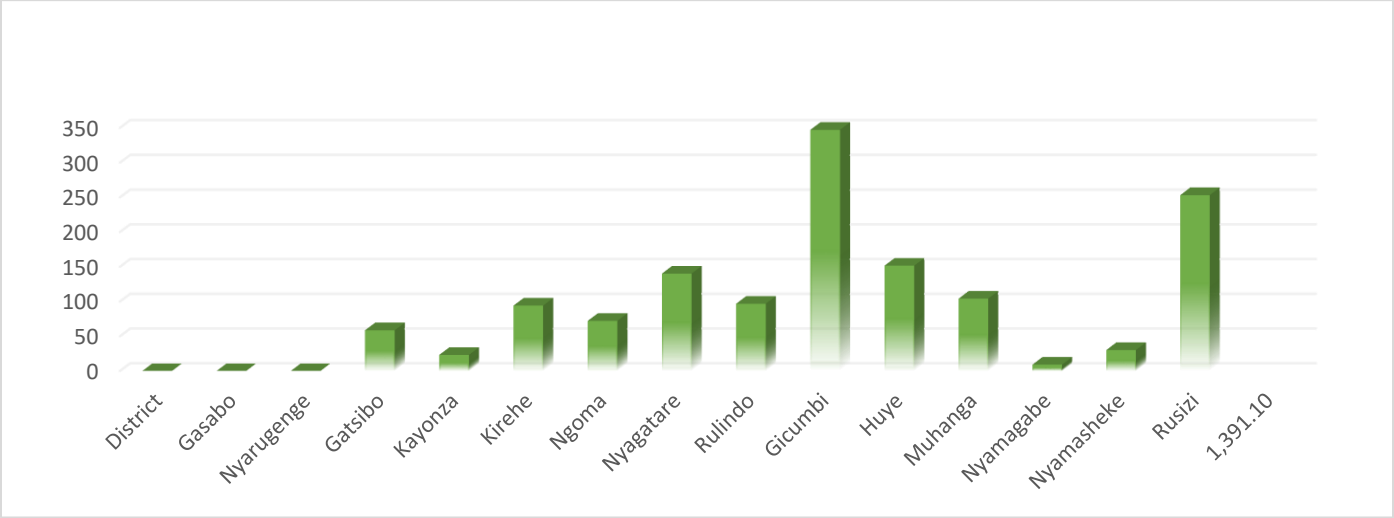


Figure 6: Degraded forests rehabilitated

According to the above table and diagram, one thousand three hundred ninety-one hectares (1,391.1ha) of degraded forests were rehabilitated on the FY 2021/22. Gicumbi district rehabilitated (347ha) followed by Rusizi (253 ha), Huye (151.1 ha) and Nyagatare (140 ha). Rehabilitation was done in 14 districts while the remaining 16 districts have not done rehabilitation of degraded forests.

Table 2: Area of bamboo planted by district

Province	*District*	*Area of bamboo planted (Ha)*
Eastern	Bugesera	150
	Kirehe	19
	Nyagatare	41.5

Northern	Burera	55
	Gicumbi	250
Southern	Gisagara	10.8
	Muhanga	28
	Nyamagabe	25
	Nyanza	12
	Ruhango	20
Western	Ngororero	28
Grand Total	639.3	

Plantation was done mainly in Gicumbi (250ha), Bugesera (150 ha), Burera (55 ha) and Nyagatare (41.5ha). Bamboo is normally planted for both protection of soil erosion and for economic role.

Table 3: Area of forests planted on roadsides

Province	District	Area (ha)
City of Kigali	Gasabo	25
	Kicukiro	15
	Nyarugenge	30
Southern	Gisagara	5
	Kamonyi	90
	Nyamagabe	2
	Nyanza	110
	Ruhango	118
Western	Karongi	337
	Ngororero	35
Eastern	Kirehe	10
	Nyagatare	10
Grand Total	787	

Trees are planted on the roadside for protection of the banks of the roads and for beautification. Over the last FY 2021/22 seven hundred eight seven hectares (787 ha) were planted in twelve districts. Mainly big areas were planted in Karongi (337 ha), Ruhango (118 ha), Nyanza (110 ha) and Kamonyi (90ha).

Table 4: Area of agroforestry planted by district

Province	**District**	**Area**
Eastern	Bugesera	2,114
	Gatsibo	540
	Kayonza	2,750
	Kirehe	1,935
	Ngoma	3,243
	Nyagatare	8,743
Northern	Burera	3,107
	Gakenke	469
	Gicumbi	271.5
	Rulindo	4,785.74
City of Kigali	Gasabo	12.5
Southern	Gisagara	1,100
	Huye	120

	Kamonyi	1,000
	Nyamagabe	1,360
	Nyanza	3,016
	Nyaruguru	1,301
	Ruhango	1,653.7
Western	Karongi	1,045
	Nyabihu	831
	Nyamasheke	3,050
	Rubavu	1,186
	Rutsiro	615
	Rusizi	854
Grand Total	64,078.7	

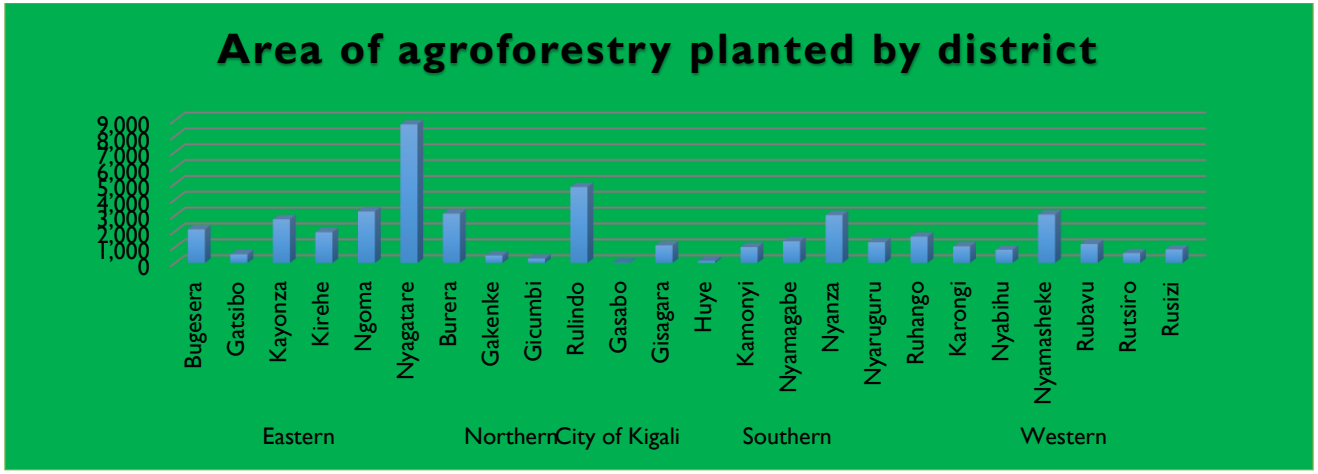


Figure 7: Agroforestry planted by district

Table 5: Distribution of fruit trees by district

Province	**District**	**Number of fruit trees**
Eastern	Bugesera	132,600
	Gatsibo	56,896
	Kayonza	510,848
	Kirehe	5,700
	Ngoma	181,380
	Nyagatare	567,320
Northern	Burera	25,000
	Gakenke	4,254

	Rulindo	176,424
	Gicumbi	32,000
City of Kigali	Gasabo	8,000
	Kicukiro	2,000
Southern	Gisagara	25,445
	Kamonyi	29,024
	Muhanga	12,273
	Nyamagabe	68,785
	Nyanza	197,502
	Nyaruguru	2,500
	Ruhango	33,038
Western	Karongi	15,688
	Ngororero	784,182
	Nyabihu	2,500
	Nyamasheke	131,620
	Rubavu	12,500
	Rusizi	211,669

	Rutsiro	9,830
Grand Total	3,202,978	

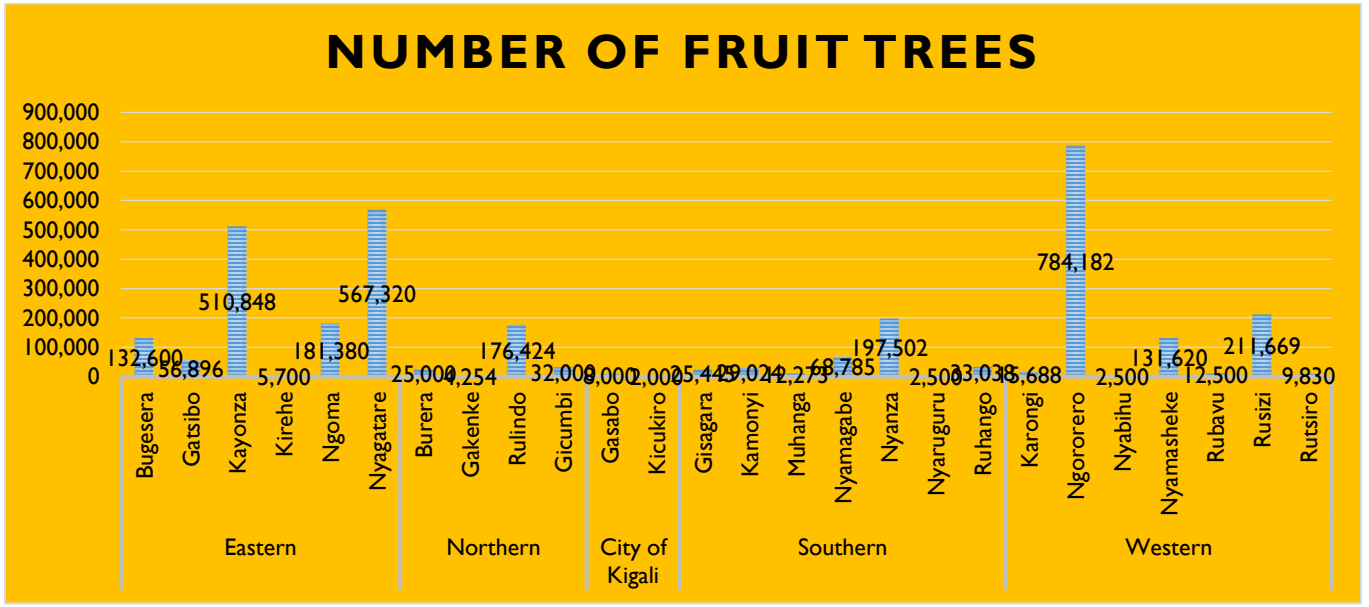


Figure 8: fruit trees planted

The table above shows that three million two hundred and two thousand nine hundred seventy-eight (3,202,978) fruit trees were planted throughout the country. The figures show that the Eastern Province planted one million four hundred fifty-four thousand seven hundred forty-four fruit trees with the biggest number planted in Nyagatare (567,320) and Kayonza (510,848). The second is the Western Province which planted one million one hundred fifty-five thousand four hundred eight nine (1,155,489) fruit trees; a big number of fruit trees in Western province were planted in Ngororero (784,182) and Rusizi (211,669). On a general scale the top three districts to plant the highest number of fruit trees were Ngororero, Nyagatare and Kayonza as per the figures above can reveal.









2.1.4 Public Forest allocated to private operators

Forests have a significant role to play in Rwanda's national development. They provide 86% of the primary energy source mainly as domestic cooking energy. They hold the base for the country's tourism opportunities, which generate a significant amount of money for the country's development. Rwanda's forests protect watersheds and downstream wetlands, support agriculture which accounts for 36% of GDP, 80% of employment and generate more than 45% of the country's export revenues https://www.environment.gov.rw/mandate/forestry-resources-management-for-economic-growth

The National Strategy for Transformation (NST1) 2017-2024 prioritizes the Sustainable Management of Natural Resources and Environment to transition Rwanda towards a green economy. Under this priority area, the country strategizes to continue strengthening forest management and ensure their sustainable exploitation working with the private sector. The target is to increase the percentage of public forest allocated to private operators from 14.1% (2017) to 80% by 2024. Private smallholder forests to be promoted and the owners encouraged to work in cooperatives for market-oriented production.

It can be observed that, twenty-three thousand four hundred eighty-six hectares (23,486.55 ha) equivalent to 38.45% as of 2021/2022 have already been allocated to private operators among with eighteen thousand nine hundred seventy-two (18,972.73 ha) under concession management and four thousand five hundred thirteen hectares (4,513.82 ha) under co-management agreements.

In the same framework, eleven thousand (11,000 ha) hectares are under negotiation, six thousand three hundred twenty hectares (6,320.79ha) are at final stage of agreement, one thousand three hundred ninety five hectare (1,395.01 ha) submitted to Cabinet and six thousand five hundred twenty six hectares (6,526.32 ha) tender awarded and others negotiation to start soon. In total 25,242.12 Ha (41.06%) are in pipeline and the progress is likely to reach 79.51% by end of NST1. In addition: 1,119ha submitted to RDB for Negotiation and 10,000ha are undergoing identification and inventory process.

In this perspective, different public forests have been put in two forms of management agreements namely "Concession and Co-management". Currently, four (4) concession agreements have been signed between the Government of Rwanda and private investors, and are being implemented on the area of 11,084 ha. The co-management agreements totalize eleven (11) agreements signed between the GoR and different private investors on the total area of 4,129.40 ha.

Table 6: Area of public forests allocated to private operators under concession agreement

S/N	Company	Area of forest allocated (Ha)	Location of the forest
01.	KME	1,365.73	Huye
02.	Ultimate	10,034	Nyamagabe, Nyamasheke, Karongi, Nyaruguru, Rusizi
03.	Sawmill East Africa Ltd	5,000	Nyamasheke, Rusizi, Nyanza &Muhanga
04.	Pfunda Tea Company Ltd	273	Rutsiro
05.	East African Bamboo Industry	2,300	
Total area of forest under concession agreement		18,972.73	

Source: RFA Administrative reports

A big chunk of public forests allocated to private operators is under concession agreement that account for eighteen thousand nine hundred seventy-two hectares (18,972.73 ha) distributed to five companies namely KME (1,365.73 ha), Ultimate (10,034 ha), Sawmill East Africa Ltd (5,000 ha), Pfunda Tea Company Ltd (257 ha), and East African Bamboo Industry (2,300 ha). The allocated forests are located in Nyamagabe, Nyamasheke, Karongi, Nyaruguru, Rusizi, Muhanga, Huye and Rutsiro.

Table 7: Area of public forests under co-management agreement

S/N	Company	Area of forest allocated (Ha)	Location of the forest
01.	Unilever Tea Rwanda Ltd	702.8	Nyaruguru
02.	Nshili-Kivu Tea Factory	260.19	Nyaruguru
03.	GISAKURA Tea Company Ltd	257.4	Nyamasheke
04.	Karongi Tea Company	210.36	Karongi
05.	Silverback Tea Company	620.53	Karongi
06.	Rwanda Mountain Tea	985.50	Nyabihu and Ngororero
07	Rwanda Mountain Tea	323.8	Rutsiro, Ngororero
08.	Multisector Investment Group-MIG	142	Nyamagabe
09.	Mulindi Tea Factory	221.11	Gicumbi
10.	Gatare Tea Company Ltd	150.6	Nyamasheke
11.	Muganza Kivu Tea Company	169.29	Nyaruguru
12.	Shagasha Tea Company	95.29	Rusizi
13.	Mata Tea Company	375.70	Nyaruguru
Grand Total		4,513.82	

Source: RFA Administrative reports

The table above shows that four thousand five hundred thirteen hectares (4,513.83 ha) were allocated to thirteen private companies (13) under co-management agreement. The allocated forests are located in Nyaruguru, Nyamasheke, Nyaruguru, Karongi, Nyamagabe, Rutsiro, Ngororero, Nyabihu, Rusizi and Gicumbi.

Table 8: Contracts under cabinet approval process

S/N	Investor/company	Area (Ha)	Forest location
01.	ICYIZERE Sylviculture Ltd	5,220.32	Nyabihu, Rubavu, Rutsiro, Ngororero
02.	ECOPEN ITUZE LTD	1,395.01	Gatsibo
Total		6,615.33	

Source: RFA Administrative reports

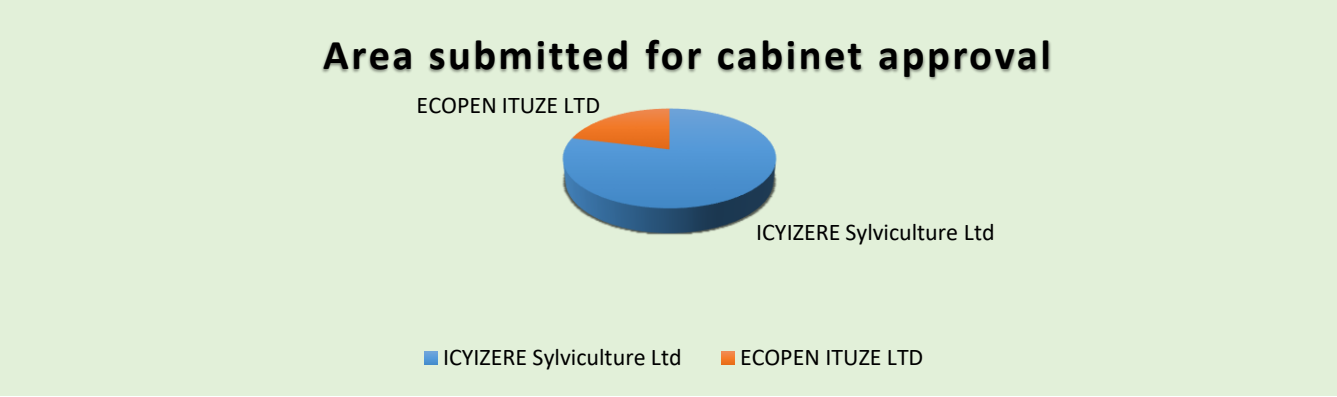


Figure 9: Area of public forests submitted for cabinet approval

The above table shows the area of forests that was mapped, tendered, negotiated and submitted for cabinet approval. The total area is six thousand six hundred fifteen hectare (6320.79ha) and is to be allocated to ECOPEN ITUZE LTD (1,395.01), ICYIZERE SYLVICULTURE LTD (4,925.79 ha).

2.1.5 Households using firewood as cooking fuel

Rwanda aspires to reduce the percentage of households using firewood as cooking fuel by 37.9% from 79.9% to 42%.

With aim to reduce households using firewood for cooking to 42% as NST1 target, the **House hold Census, 2022** shows that 76.1% of households still use firewood for cooking; this implies a 19% progress towards the NST1 target.

Numbers reveal that over 400,000 improved cook stoves have so far been distributed in rural areas under different projects/initiatives and there're ongoing initiatives in line with the reduction of biomass usage (see table 13). Exit strategies for using alternative sources of energy other than wood have been requested from tea companies, companies including Mulindi & Rwanda Mountain tea factories have already submitted and other companies to submit their strategies soon. The new cook stove testing laboratory under the partnership of World Bank and Nordic Development fund has been established at Rwanda Standards Board, the laboratory is already in operation. It ensures that the manufactured cook stoves meet quality & safety requirements for the protection of both users and the environment.

Additionally, Capacity building; on green production processes and certification to charcoal makers on efficient charcoal production and other energy efficient technologies (e.g. brick kilns, and the kiln was piloted), tree reproductive Materials (TRM) collection and forest management practices and more capacity buildings' initiatives will be carried on in the subsequent years.

Though there're challenges still sighted under this target, however with the developed Biomass Energy Strategy, various measures have been put in place under the coordination of MININFRA to promote alternative improved technologies such as LPG, Electricity, Improved Cook-stoves (Briquettes, Pellets & Wood) and Green Charcoal Production. The strategy suggests different actions to different categories of biomass users as below:

Category 1: Institutions that use charcoal or firewood for their daily cooking

Action1: All public institutions should move to LPG or electricity

Category 2: Households that buy charcoal or firewood for cooking

Action 2: Awareness campaigns to encourage users of charcoal to shift to clean technologies (LPG, Electricity, etc.)

Category 3: Households which collect firewood for cooking, mostly in Rural Areas

Action 3: Subsidize Improved Cook Stoves (ICS) costs to increase uptake

On-going Initiatives with Funding in line with biomass use reduction

Table 13: Ongoing initiatives in line with the reduction of biomass usage

Item	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	TOTAL
ESSP target (ICS dissemination)	137,219	293,191	315,490	339,127	364,112	390,544	18,39,684
Achievements* (HHS using ICS)	-	12,300	302,819	184,330	178,021	-	677,470
Balance ICS dissemination to achieve the target							1,162,214

Source: The Energy Sector Strategic Plan (ESSP)

Table 14: Ongoing initiatives in line with the reduction of biomass usage

Institution	***Name of the project***	***Target (HHs) by end,2024***
MoE	Green Gicumbi	23,400
REMA	Green Amayaga	60,000
RWB	Embedding Integrated Water Resources Management	7,500
RFA	AREECA Project	2,000

REG – BRD	CC-RBF Program	500,000
NGOs/CSOs	DelAgua	241,007
NGOs/CSOs	ARECO	8,999
NGOs/CSOs	REDO	9,103
TOTAL		852,009

Source: CENR – TWG, 2022/23 report.

Through the projects indicated in the above table, eight hundred fifty two thousands and nine (852,009) households are targeted to be provided with improved cook stoves and other alternative clean cooking technologies by end of NST1 2024. Note that, these are not the only on-going imitatives, there's a planned mapping of all institutions/organisations/individuals distributing ICS country wide to foster proper Biomass programs coordination and guide them to report to a central entity in charge of clean cooking (REG).

2.2 WATER

2.2.1 Water Resources Policy

The National Policy for Water Resources Management (2011) is the latest developed policy in Government's consistent and continuous efforts to sustainably manage water resources in Rwanda. The Government has introduced several reforms in the water sector that have significantly changed the context for water resources management and rendered the 2011 policy out of date. Thus, with so many changes that have happened over the twelve years since this policy was developed, the Ministry of Environment in conjunction with the Ministry of Infrastructure and other relevant stakeholders have embarked the process of revising it, the revision is almost at final stage.

Much as the revised (new) water policy is being waited, implementation of the 2011 policy actions, has been on-going, key to mention, include (i) follow up and monitoring of NBI Projects and programs (ii) Establishment of Lake Kivu gas resources Management Prescriptions, (iii) Report on the development of the Congo Basin Blue Fund, (iv) feasibility study on the rehabilitation of refugee camp gully Jointly with MINEMA conducted (v)Developed the Nile Basin Management plan/framework

and Basin Investment, (vi)Developed the Strategic Action Plan for the Lake Kivu and Rusizi River Basin among others. Implementation of the previous policy actions has been possible through;

2.2.1.1 Lake Victoria-ACC Project

"Adapting to Climate Change in Lake Victoria Basin (ACC-LVB)" is a regional project under implementation in the Lake Victoria Basin (LVB), a water catchment covering the five East African Countries of Burundi, Kenya, Rwanda, Tanzania and Uganda. The overall objective of this project is to "reduce vulnerability to the negative effects of climate change in the five LVB countries" by implementing both regional and community-based climate change adaptation interventions. ACC-LVB project is funded by the Adaptation Fund (AF), with UN Environment

The Lake Victoria Basin (LVB) is a critical trans- boundary natural resource, underpinning the livelihoods and well-being of a dense and fast-growing population. The LVB has an approximate total area of 194,200 km2 and is shared by Burundi, Kenya, Rwanda, Tanzania, and Uganda (*See Figure 1*). Close to 45 million people live in the basin, with around 60-80% of the population rely on rain-fed subsistence food production, as well as fishing and livestock for their livelihoods. Climate change in the LVB has not only affected agriculture, but also water and aquatic ecosystems, terrestrial ecosystems including forests and wildlife, as well as tourism, health, sanitation and human settlement.

The Ministry of Environment in collaboration with Kirehe District selected three sites where the project activities will be implemented in line with the ACC-LVB Project document where Kirehe district was selected among the hotspot districts in which the project is being implemented. The main achievements include but not limited to;

- Supplied and installed 160 rainwater harvesting plastic tanks in Kigarama Village (Gatore Sector) to address climate change induced water shortage at household level, to improve health and livelihoods of community living in that village as well as to reduce runoff which causes soil erosion and destruction of properties during the rainy season;
- Implemented of Ecosystem-based Adaptation (EbA) activities including the restoration of land and soils, protection of lives and properties of community in Kabeza Village (Gahara Sector).
- Provided small grants to support implementation of community-based small-scale adaptation projects in 11 villages adjacent to Akagera wetland in Kabuga and Gasarabwayi cells in Musaza Sector (Gicuma, Rukumba, Rwinyundo, Nyakiriba, Nyakariba I & II, Kanyosha, Nyamugari, Rugango and Rubuye I & II).





- 160 Water tank stand constructed and tanks installed
- 149 PVC plastic gutters and supporting woods installed
- 145 houses plastered





Before

- 100m^3 of gabions constructed
- 500m of gully widened and Shaped





Before *After*

CHAPTER 3



ENVIRONMENT AND CLIMATE CHANGE

CHAPTER 3: ENVIRONMENT AND CLIMATE CHANGE

The ECC policy revised in 2019, with the main goal "Rwanda to have a clean and healthy environment resilient to climate variability and change that supports a high quality of life for its society". The revised policy has seven objectives namely (i) Greening economic transformation (ii) Enhancing functional natural ecosystems and managing biosafety (iii) Strengthening meteorological and early warning services (iv) Promoting Climate Change adaptation, mitigation and response (v) Improving environmental well-being for Rwandans (vi)Strengthening environment and climate change governance (vii) Promoting green foreign and domestic direct investment and other capital inflows.

Though the policy is still at its early stages of implementation, there has been speedy progress towards the underlined policy objectives;

3.1 Greening economic transformation

Under this objective, taxes have been exempted in the importation of electric cars and other renewable energy technologies.

Funds have been mobilized to provide grants to SMEs in order to support recovery from Covid-19 impacts while considering environment and climate change (108 small businesses were supported under RFF) and Green incubator, accelerator for start-ups.

Rwanda sustainable finance roadmap; This Circular Economy Action Plan for Rwanda has been developed in collaboration with the Ministry of Environment, Trinomics B.V. and ACEN Foundation, in support of the United Nations Development Program. This Action Plan gives clear direction to the country on how the transition towards a more circular economy can be approached and streamlined in the next 14 years, until 2035. More specifically, the Action Plan (a) streamlines efforts and initiatives related to the circular economy across sectors and ministries and (b) mainstreams circular economy principles into economic growth and policymaking.

3.1.1. Feasibility Study on Plastic Waste Management, Assessment of Single Use Plastic:

The Ministry of Environment in partnership with United Nations Development Agency (UNDP), through Strengthening Capacities of the Environment and Natural Resources (SCENR) Sector for Green Economy Transformation (SCENR) Programme, conducted a feasibility study on *Plastic Waste Management.*

- Single Use Plastic: *Framework for legislative interventions*: The plastic waste management has become a global issue due to its low degradability and other associated negative impacts. The production of plastic worldwide has reached 407 million tons per annum (Mtpa) well above that of paper (400 Mtpa) and aluminum (57 Mtpa) and it is projected that with the current rates,

plastic production may rise up to 1,600Mtpa by 2050 (OECD, 2018). This high plastic production is stimulated by some advantages including, but not limited to: low production cost, high strength-to-weight ratio, resistance to physic-chemical degradation, affordability. The most common types of plastics found are single use plastics (SUP) items which have substantial negative impacts including bio-accumulation in food chain, blocking the movement of water into the soil and drainage channels, contamination by micro-plastics. The study revealed that that plastic waste generation increases with economic development and population growth. Green growth approaches or circular economy will be introduced to close the loop that will ensure sustainable plastic management thus reducing accumulation of plastic waste.

- Detailed and coasted National Circular Economy Action Plan and Roadmap*:* This Circular Economy Action Plan for Rwanda has been developed by the Ministry of Environment in collaboration with United Nations Development Programme. The Action Plan gives clear direction to the country on how the transition towards a more circular economy can be approached and streamlined in the next 14 years, until 2035. More specifically, the Action Plan (a) streamlines efforts and initiatives related to the circular economy across sectors and ministries and (b) mainstreams circular economy principles into economic growth and policymaking.

- Implementation of the Green Growth Climate Resilience Strategy (GGCRS)

  On January 30th 2023, The Cabinet approved the Revised Green Growth and Climate Resilience Strategy (2050 – GGCRS)[1] following a comprehensive revision of the maiden strategy of 2011 fostering to create an enabling environment for the implementation of the Green Growth Climate Resilience Strategy (GGCRS) in selected sectors to ease mainstreaming of the green growth principles.

  The Government of Rwanda (GoR) has therefore demonstrated a strong commitment to transform Rwanda's economy to a Green Economy. In order to engage new national actors, successful business cases of green economy transformation needed to be demonstrated, scaled up and owned by stakeholders. To create entry points for GGCRS demonstration, some areas were identified. The first area was to bridge the scale up of Green Villages and with this, he Ministry of Environment in partnership with UNDP, integrated activities of green components in Mudende IDP model village in Rubavu district. To ensure the livelihood of the beneficiaries is improved, they were also provided with cows and trained in income generating activities and financial management. These activities were completed and the green village was officially handed over to Rubavu district. Going forward,

[1] https://www.primature.gov.rw/index.php?eID=dumpFile&t=f&f=61103&token=840354add04c053c84f68a3eae950cf3e6f79144

an assessment was conducted in Kivugiza IDP model village in Nyaruguru district to identify the green components to be integrated in the village. So far, a joint plan has been developed and implementation is ongoing.

In the same perspective, a number of activities were conducted, theseinclude joint inspections of environmental crimes in partnership with RIB&RNP, acquisition of a drone to serve in environmental crimes investigation and a consultative workshop that involved RIB investigators, prosecutors, judges, police officers and park wardens in order to streamline the way of dealing with environmental crimes and the development of the Green Growth Manual for Tourism and Hospitality.

3.2 Nationally Determined Contributions (NDCs) implementation

Rwanda's Nationally Determined Contribution (NDC) is a climate action plan that serve as a blueprint for advancing targeted and measurable climate action for both climate change adaptation and mitigation. The NDC indicated the actions that will drive the country on its target. The actions are divided in two sections, climate mitigation and adaptation actions. the mitigation actions are divided in four sectors while adaptation actions are divided in 7 sectors . Although Rwanda's contribution to climate change is relatively small, the country has the potential to increase substantially with a fast-growing economy. At the same time, climate change impacts on the livelihoods and the economy are already evident and projected to worsen. The urgency to implement the NDC is clear, as well as the need for financial support to get new projects underway that will contribute to low-carbon, climate resilient economy. The Ministry of Environment is mandated to coordinate and report the implementation of NDCs. Capacity building workshops were organized for the 11 media practitioners including 2 women (19%) and 9 men (81%). In addition, 11 news stories were developed, to be published through radio, TV and web-based media outlets and six concept idea notes were completed, and three full proposals are on draft phase.



Picture (Archive): Grant beneficiaries in training

A training of 208 grant beneficiaries including women and men was conducted to enhance and strengthen their capacities in project management, cooperative management, financial management, marketing, auditing and introduction on circular business model and resources efficient to cleaner production tools.



The Ministry of Environment in collaboration with the Ministry of Finance and Economic Planning and Rwanda Green fund-FONERWA with the support of NDC Partnership revised the NDC Partnership plan developed in 2018 into the NDC implementation framework finalized and launched in October 2021. The NDC implementation Framework covers the period of 2020-2025 and captures specific programs and projects for each measure/priority identified in the Rwanda updated NDC to

guide and support national efforts to mobilize climate finance. This part of the report summarizes the main achievements made in regard with the implementation of the NDCs during the FY 2021/22.

3.3 Promoting green foreign and domestic direct investment and other capital inflows.

3.3.1 Cumulative volume of finance US$ millions mobilized for climate and Environment purposes

The implementation of the NDCs requires around 11 billion USD, hence the Ministry of Environment has mobilised a cumulative amount of USD 247 million. Specifically for this concluded FY 2021/22, the MoE mobilized USD54.7 million to finance climate and environment related projects and since its foundation FONERWA has supported 46 projects. The mobilised funds were secured from different partners namely, GIZ/NAMA (€297,613): USD 333,832 for e-moto project facility preparation, KfW (€26M): USD 29M for the implementation of the NDC Facility, TA for circular economy and waste management (€4M): USD 4.27M, Sustainable Urbanisation (€12M): USD 12.83 M, TA for NDC implementation (€4M): USD 4.27M, Finkerat (Rwanda, Kenya & Tanzania) (€2.5M): USD 2.43M and Domestic resources (USD 1,558,990).

Also, a number of pipeline projects and project proposals aiming at mobilising funds are regularly developed. Under this context, this FY 2021/22; the following proposals to potential funders/partners have been developed;

- Submitted the Electric Mobility Proposal to NAMA - USD 18M
- Submitted the floods risk management in volcano region project proposal to the GCF and Adaptation Fund - USD 50M
- Mainstreaming Climate Smart Planning and Implementation into Agriculture Development to the GCF - USD 40.8M
- Upper Nyabarongo project proposal submission to the GCF - USD 44.9M
- Rwanda Green Investment Facility proposal submission to GCF - USD 76M
- Rwanda sub-national Adaptation Fund EDA- USD 5M Green City Kigali project/ Ngaruyinka Village Upgrade - USD 50M
- The development of 2 GCF proposals is ongoing: Flood Risk Management in the Volcano Region and the Upper Nyabarongo-Mbirurume Catchment Restoration Projects.
- FONERWA is finalising products and instruments that include the establishment of Rwanda's Catalytic Green Investment Facility (RGIF), the design and operationalization of the incubator program, and the green leasing facility to enhance the contribution of the Private sector to the implementation of NDC.

- The Ministry of Environment has developed a project Pipeline based on the NDC IF / year one for resource mobilization. A pipeline of around 57 public projects (Sectors and Districts) and 6 private sector projects is being finalized for resource mobilization.
- Rwanda is one of the five Pioneer Countries for the Taskforce on Access to Climate Finance which was established to increase access of developing countries to climate finance launched by the United Kingdom and Fiji at COP 26. TA to head the task force is already recruited.
- In the framework of NDCs implementation, a number of projects pipeline have been developed (*mentioned in the previous chapters*).

Apart from the efforts made by the Ministry of Environment also mobilized resources in the framework of funding climate and environment related projects. In the facet, a number of Feasibility studies and project proposals have been developed such as;

- Volcanoes Project
- Congo Nile Divide
- Climate smart agriculture
- Green City Kigali Pilot
- Reviewed MoE's GCF accreditation
- Land development validation meeting for Ngaruyinka village
- Finalised the interim progress report for Green City Kigali PPF
- ToRS for the recruitment of a consultant to undertake the feasibility studies for the Upper Nyabarongo Mbirurume project.

3.4 Enhancing functional natural ecosystems and managing biosafety.

3.4.1 Nyandungu Eco-Tourism Park

Nyandungu Eco-Park was transformed from a degraded wetland into an educational and recreational public space in the heart of Rwanda's capital city. It represents the value of restoring urban ecosystems, and serves as a blueprint for all wetlands in Kigali and across the country.

Nyandungu Eco-Park was officially opened in 2022 by the Rt. Hon. Prime Minister of Rwanda and provides a space for residents and visitors to the city to explore and learn from nature, and is part of Rwanda's efforts to harness eco-tourism to restore biodiversity and conserve urban wetland ecosystems.



***Left to right**: DG- REMA; Hon. Minister, Foreign Affairs & International Co-operation - Rwanda; Rt. Hon. Prime Minister - Rwanda; H.E. Hailemariam Desalegn, Former Prime Minister of Ethiopia and Hon. Minister of Environment – Rwanda.*

Following its successful rehabilitation, as this has harnessed eco-tourism and restored biodiversity, conservation in urban wetland ecosystems, this has ushered into the rehabilitation of other five wetlands (Gikondo, Rugenge, Rwintare, Kibumba & Nyabugogo) in the City of Kigali within the wider framework of sustained implementation of Arcticle 28 of the 2018 Law on Environment that stipulates "to identify areas to be protected for conservation or rehabilitation of ecosystems, forests, woodlands, species of biodiversity and protected zones, monuments, historical sites and landscapes". So far, the final draft feasibility study and baseline studies as well as a preliminary designs for the five wetlands were validated in September 2022.

Note that aerial LiDAR data collection was done and a draft video for final baseline drone-based documentary was done for the five selected wetlands in Kigali City.

3.4.2 Management agreement of Nyungwe national parks by private operators was signed

Rwanda signed a long-term management agreement of Nyungwe National park for 20 years with the African Parks. The articles in the Agreement focus on the improvement of wildlife conservation and expansion of tourism infrastructure. African Parks will work closely with the local communities to implement an effective law enforcement strategy and to restore and protect wildlife for the long-term ecological, social and economic sustainability of the park.

3.4.3 **Enhanced Environmental management and resilience to climate Change**

3.4.3.1 Approved EIA and EA certified projects in compliance with EIAs and EA studies and conditions of approval

During the FY 2021/2022, 53 certified projects were inspected for compliance with EIA and EA approval conditions. The inspections were conducted in diversified domains of operation and projects which did not fulfil the minimum compliance were stopped and recommendations were made accordingly. The monitored projects included; textile, brewery, leather, pyrethrum, steel, cement processing, quarry and mining, construction, polythene bags manufacturing, paper and cleaning detergent maize processing, packaging and power transmission projects among others.

In partnership with the World Bank, a study on E&S Risk Management Capacity Assessment was conducted and the final report was validated in September 2022. Key actions recommended by the report were endorsed by a high Level meeting comprising the Minister - MOE (Chair), Minister - MIFOTRA, Minister of State in charge of Economic Planning - MINECOFIN, Chief Gender Monitor - GMO, Deputy CEO - RDB, PS - MOE, DGs of REMA, NLA, LODA and CEO – FONERWA as well as the World Bank Rwanda Country Manager and its environmental and social risk manegement team. Actions adopted include the amendment of the 2018 Law on Environment, providing inputs in the 2015 Expropriation in Public Interest Law and the Public Procurement regulations to adequately cover social risk management occupational health and safety by the end of 2023. The High Level Meeting also endorsed capacity building actions for environmental and social risk management in mandated institutions by end of 2023, entailing (i) to establish a call down for specialized expertise (medium term), (ii) to carry out institution-specific capacity building plans (medium term), (iii) to implement institution-specific Continuous Professional Development (CPD) programs for E&S risk management and (iv) to establish Electronic Grievance Mechanisms (e-GRMs). The High Level Meeting endorsed the

establishment of a sustained coordination mechanism by end of 2023, comprising a National Steering Committee chaired by MINECOFIN stablishment of Permanent Coordination Office hosted in MINECOFIN, and Technical Working Groups-TWGs comprising major stakeholders.

3.4.3.2 Waste management

Continuous monitoring is also done to ensure no illegal activities are done in wetlands. In this perspective, 60 inspections were conducted and 144 illegal activities in wetlands and lakeshores were evicted and others relocated and 294 inspections were conducted to enforce law banning single use plastics.

The GoR launched the "Decoupling Hazardous Waste Generation from Economic Growth in Rwanda" project at the end of last year. The USD 6.8m five-year project (2022-2025) aims to protect human health and the environment from the adverse effects of hazardous waste. At the same time, a technical assistance support grant was received from the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) grant. The grant will support the pillars of the National Integrated Solid Waste Management Strategy that promote Private Sector Participation by ensuring sustainable, equitable, affordable access to primary services; and growing the contribution of the waste sector to the green economy. The grant will synergize with Decoupling Hazardous Waste Generation from Economic Growth project to among others, pilot a best practice, private sector operated medical solid waste facility.

3.4.3.3 Air pollution

Air and water pollution are major environmental problems that contribute to a significant number of deaths and diseases. The government is committed to preserving air quality, combatting air pollution, and is taking important initiatives to identify sources of air pollution and improve national levels of air quality (REMA, 2020). This commitment is important because good air quality contributes greatly to human wellbeing and the health of the ecosystems.

In Rwanda, air pollutants are emitted from a wide range of economic sectors such as transport, energy, industry, and from natural sources such as volcanic eruptions, dust storms, and wildfires. Once released into the atmosphere, pollutants undergo physical and chemical changes that impact the quality of ambient air and lead to air pollution. This pollution is a complex mixture of particles and gases that exist in our atmosphere at different concentration ranges. The pollutants of greatest concern are

particulate matter (PM2.5 and PM10), Nitrogen dioxide (NO2) and ground-level Ozone (O3). They can be classified as outdoor or indoor air pollutants depending on the source

The government has taken several preventative measures to combat air pollution since the publication of the first State of Environment and Outlook Report in 2009. In previous years, the country lacked reliable air quality data due to limited monitoring. However, this changed with the launching of the Rwanda Air Quality and Climate Change Monitoring project in 2018 (EC, 2018) (MINEDUC, 2021). It is a joint project between REMA and the Ministry of Education and had the key objective of establishing an air quality monitoring system in the country. REMA has set up an air quality monitoring instruments system that provides data (real-time air quality index) on air quality across the country. The data is also accessible on the "Rwanda AQI" application so that users can compare ground observation data with satellite data. This development has led to tangible improvements in air quality data ultimately supporting law enforcement activities for air pollution control and enhancing expertise in climate change and air quality research in Rwanda (EC, 2018). During the FY 2021/22, 10 new Air Quality Monitoring Stations were acquired and installed and 18 existing were maintained.

3.4.3.4 Lake Kivu monitoring

Lake Kivu is a shared resource between Rwanda and the Democratic Republic of Congo (DRC) whose bed sits upon a rift valley that is slowly being pulled apart, causing volcanic activity in the area, and making it particularly deep. Both natural processes and human activities, including the methane exploitation, lead to changes in Lake Kivu. Such changes could potentially increase the risk of a gas eruption, they could deteriorate the water quality and lake ecological integrity, or they could negatively affect the methane exploitation. The lake monitoring aims at detecting such changes as early as possible before they develop into larger problems. The lake management and methane exploitation strategy can then be adapted to either avert a negative development, or at least to reduce its negative.

Progress regestered during 2021/22FY to mention, include;

- Lake Kivu monitoring activity under REMA ensured that methane gas operators comply with the Management Prescriptions for Development of Lake Kivu Gas Resources (MPs), which is a set of prescriptions developed by a group of international experts on Lake Kivu for the sustainable and environmentally friendly Methane gas extraction.
- Monitoring exercise includes processing large amount of data measured with CTDs instruments during monitoring campaigns carried out on the Lake.

- More still, during the FY 2021/22, Initial activities towards the construction of a new laboratory in Rubavu have steadily advanced (negotiation stage).
- Last but not least, inspection at Kivuwatt and SPLK whereby 1 lake stability and 1 fish biology reports were produced; And data collection and analysis were done from operational seismic stations.

3.4.3.5 Enhanced reliability of weather and climate services and products for socio-economic development of Rwanda

To achieve Vision 2050 and become an upper-middle income country by 2035 a number of policy and high level strategic ambitions have been put in place. While setting these ambitions, Rwanda also puts emphasis on adhering to green economy principles and responding to the pressures from a rapidly growing population on land, water, food, and energy resources that are currently threatening the sustainability of its development which are, in turn, compounded by the effects of climate change such as extreme flood events, increased duration and frequency of droughts, and increased average temperatures.

To support the planning, it is indeed to have climate projections so that they guide any planning in order to cope with their potential effects. In this perspective, Rwanda Meteorology Agency has produced and documented "*Rwanda Climate projection for the period of 2021-2050, 2041-2070 and 2071-2100*'. The report generated and downscaled climate projections from global and regional to national and sub-national levels over Rwanda based on the best available techniques and data while validating different Regional Climate Models (RCMs) to be used as the basis for national and sub-national climate change adaptation planning.

Seasonal forecasts were downscaled to national level in all three languages (English, French and Kinyarwanda) and is available to inform better planning. These forecasts were also accompanied by daily, monthly forecasts and historical climate information, historical climate extremes and seasonal trend analysis across the country from 2016 to 2021. Besides this, the State of Climate in Rwanda for the Year 2020 was also documented.

CHAPTER 4



ADVOCACY, PARTNERSHIP AND MULTILATERAL ENVIRONMENTAL AGREEMENTS

CHAPTER 4: ADVOCACY, PARTNERSHIP AND MULTILATERAL ENVIRONMENTAL AGREEMENTS

3.5 Awareness raising and advocacy

3.5.1 The 6th State of Environment and Outlook report 2021

The report was produced and disseminated through Higher Learning Institutions, Civil Society Organisations among other stakeholders during the National Environment Week 2022. The report revealed that the state of environment is influenced by drivers, key of these include; demography, human settlement and rapid urbanization, structure of the economy and the social-development context and the inerractions between these drivers are complex in nature & intertwinned. Nevertheless, Rwanda is committed to addressing these challenges with the aim of achieving long-term sustainability and climate-resilient economy by 2050. However, this will require concerted action, engaging various policy areas in environmental protection, development and actors of society to enable sustainable development.

3.5.2 NLUDMP Dissemination and Rural settlements sites verification conducted in 30 districts

The NLUDMP 2050 was produced and approved by the cabinet. And to ensure its implementation, that required all stakeholders to understand it and have full ownership of the plan,effort was deployed in its dissemination and this was done throughout all districts and various stakeholders were reached using all dissemination channels to a large extent.

3.5.3 Multilateral Environment Agreements (MEAs)

As per article 7 of the Minamata Convention on mercury Rwanda developed the Minamata Initial Assessment report to inform the national action plan to phase out mercury as the main objective of the convention. In line with the Rotterdam Convention in its article 10, parties are required to submit the import responses showing their position with regard to chemicals listed under annex III of the convention. In the FY 2021/22, Rwanda submitted the remaining Import Responses on pesticides and Industries Chemicals and Prior Informed Consent (PIC) was circulated among all state parties.

Regarding the Convention on International Trade of endangered species (CITES); Rwanda promulgated the law governing biodiversity incorporating all provisions from Law on biodiversity from CITES. For the sake of continued efforts to develop national capacity; trainings were organised and offered to experts from different areas and sectors of the economy in line with MEAS among which 47 people trained on GHG data management and climate change reporting methodologies.







CHAPTER 5

IMPLEMENTATION OF THE COVID-19 SOCIO-ECONOMIC RECOVERY PLAN

CHAPTER 5: IMPLEMENTATION OF THE COVID-19 SOCIO-ECONOMIC RECOVERY PLAN

In response to COVID-19 effects, the Ministry of Environment in collaboration with the UNDP mobilized funds worth USD 1,500,000 for Rapid Financing Facility to implement a "Recovery for Youth and Women Enterprise projects" whose businesses have been affected by the pandemic. Despite the fact that these sectors were mostly affected by COVID-19, they as well employ a vast majority of women and youth in Rwanda. The latter are expected to be empowered so that they can be part of the process as the project facilitates their access to business support schemes, and capacitates them to utilize digital innovations and platforms to re-invigorate their businesses.

The project has three components: (i) Women and youth entrepreneurs/SMEs empowered to expand access to finance and digital tools to adapt and respond to COVID-19 economic shocks through active participation in the tourism supply chain; (ii) Tourism industry recovery supported by a strategy to reorient towards greener and local/regional market orientation; and (iii) Rwanda's national recovery agenda guided by multi-stakeholders partnerships, dialogues and guidelines for long-term green growth and investments.

In this regard, through comprehensive selection process, 108 youth and women cooperatives and companies were provided with financial support to build back their businesses. Beneficiaries were trained to strengthen their capacity for successful implementation of their project before districts disburse funds. Beneficiaries were identified from eight districts Bugesera, Burera, Musanze, Kamonyi, Nyabihu, Rubavu, Rulindo and Rwamagana Districts and the City of Kigali.

Further still, in other projects within the sector, tremendous progress was registered in line with the same programme for Covid-19 economic recovery, and the ultimate objectives were achieved, to mention:

- Green Jobs created from sector investments were 41,712 (Permanent: 3,052 jobs, Casual: 38,660).
- Mainstreamed environment and climate change in agriculture to reverse environment degradation and promote sustainable agriculture.
- Under Green Amayaga, 1,450 livestock (113 cows, 180 pigs and 1,157 goats) have been provided to vulnerable households.
- 100 water tanks were supplied in Ndego Sector in Kayonza District
- 23 national budget agencies (ministries and agencies) and 62 planners and environmental officers from 30 districts and the City of Kigali were trained on the use of Environment and Climate Change checklist to mainstream environment and climate change into the planning and budgeting process

Table 9: Number of projects financed through RFF (Rapid Financing Facility) by district

Location	*1st call*	*2nd call*	*Special call*	*Total*
Bugesera	6	5	1	12
Burera	5	7	1	13
Kamonyi	5	6	-	11
Musanze	13	1	-	14
Nyabihu	4	6	-	10
Rubavu	2	9	-	11
Rulindo	6	9	-	15
Rwamagana	2	9	-	11
City of Kigali	7	4	-	11
Total	50	56	2	108

The table above shows that, among the 108 small scale projects supported and are distributed as follows; Rulindo (15), Musanze (14), Burera (13), Bugesera (12), Kamonyi (11), Rubavu (11), Rwamagana (11), CoK (11) and Nyabihu (10).

CHAPTER 6



DIGITALISATION & ONLINE SERVICES

CHAPTER 6: DIGITALISATION & ONLINE SERVICES

6.1 Digital Land Titles

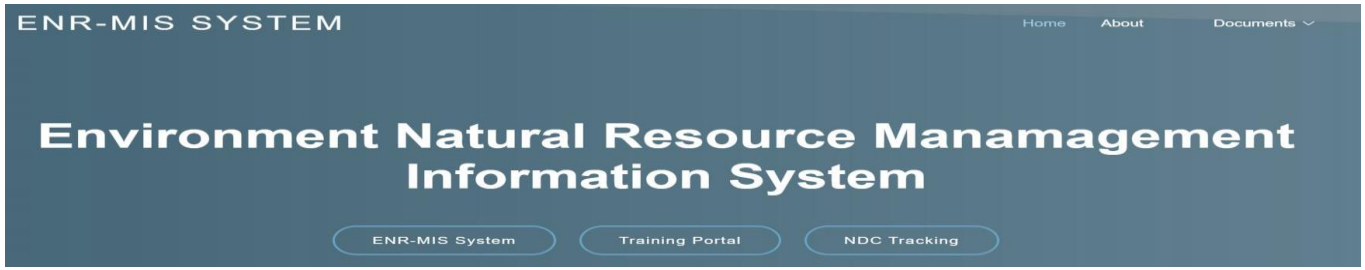
To make it easier for citizens to undertake land related transactions and achieve paperless service delivery, the National Land Authority launched a pilot for the provision of electronic certificate of land registration, also known as "e-Title". The new system will eliminate the issuance of physical land title deeds and enable other sectors to rely on digital land certificates to serve citizens in different capabilities.

The implementation of e-Title will accelerate service delivery, reduce the cost associated with the production of titles and address the issue of title loss or damage. The goal is to realise the target of zero trips, and zero paper. Once fully operational, e-Titles will be accessible via the land portal at https://landinformation.lands.rw

6.2 Baza -MoE (Ask)

Baza – MoE is It is a digital channel created where citizens and other stakeholders can lodge complaints, ask questions, share information regarding services and projects and receive timely feedback. It wascreated to respond to beneficiaries of services provided by the Ministry of Environment and its affiliated agencies. The system can be accessed via the Web, Android, IOS, SMS, and USSD (*164#). To access Baza, visit https://bazamoe.environment.gov.rw

6.3 Environment and Natural Resources-Management Information System-ENRMIS



Environment Natural Resources Management Information System (ENR-MIS) is an online reporting platform that helps data management of Environment and Natural Resources in Rwanda towards decision making. ENR-MIS serves in data collection,

data entry, analysis, visualization and tracking progress. The ENR-MIS is considered the main instrument that serves in the whole process of information management and monitoring of all activities implemented in the ENR sector, as with cross cutting issues that may touch other sectors, the ongoing improvement and uplifting usage of the system is seeking to determine the feasibility of engaging all stakeholders that are pioneers that play a role in sustainable environment management.



CHAPTER 7



INVOLVEMENT IN PLANNING PROCESS FOR 2021/22 FY

CHAPTER 7: INVOLVEMENT IN PLANNING PROCESS FOR 2021/22 FY

The Planning process for 2021/22 started with organizing the Backward-Looking Joint Sector Review meeting. The Backward-Looking Joint Sector Review (BLJSR) forum brought together stakeholders within the climate, environment and natural resources sector to engage in a policy dialogue and monitor the implementation of plans set forth in the key national planning and policy documents such as NST-1, Vision 2050 and the Sector Strategies. During this forum, stakeholders assessed progress on sector objectives (sector performance indicators), achievements, budget execution performance and discussed priorities for the next fiscal year (2022/23FY).

The report followed the methodological approach which was followed in preparing the CENR Backward Looking Joint Sector Review: First and fore-most, Terms of Reference were circulated and explained to the Thematic Working Groups which are represented by the sub-sectors that are mandated to implement the programs within the CENRSSP, development partners and other stakeholders. It was through these TWGs, that necessary data was gathered, that fostered the preparation of the final Joint sector Review report that was presented to the Sector Working Group for validation.

The planning and budget consultation for FY 2022-2023 were conducted and key recommendations in regard to CENR integration were provided to all Sectors. Districts' single action plans were also reviewed to make sure they align with environment and climate change mainstreaming, mainly looking into the levels at which they have integrated CENR key performance indicators for the FY 2022-2023. The ECC assessment report for 2020-2021 was completed and the overall performance was 69.1% from 61.6%, slight increase of 7.5% as compared to the previous financial year and the budget performance was at 4.9% from 4.6% a slight increase of 0.3% respectively. Number of training workshops with Sectors planners were conducted on ECC mainstreaming into Sector planning and budgeting for the FY 2022-2023. The 2022/2023 EEC integration report was also produced and Compilation and analysis of 2022/2023 sectors' plans and budget to ensure integration of ECC indicators, reviewed and feedback was provided in the planning and budgeting consultation. Budget execution, see details (Annex 1).

CHAPTER 8

CLIMATE RESILIENCE AND PARTNERSHIP DEVELOPMENT

CHAPTER 8: CLIMATE RESILIENCE AND PARTNERSHIP DEVELOPMENT

8.1 Environment and climate conferences

GoR through the Ministry of Environment participated and hosted number of different international conferences related to environment and climate change during FY 2021/22. Among them, include the following;.

8.1.1 Sustainable Energy for All (SE forALL)

The Sustainable Energy for All conference took place in Kigali in May 2021 for its first time in Africa to spark greater progress on a clean, inclusive energy transition in partnership with Sustainable Energy for All (SEforALL) and the Government of Rwanda. The global SEforALL Forum is the landmark international gathering on sustainable energy.

Global leaders from government, business, development institutions, civil society and many other organisations as well as youth representatives will build partnerships, share expertise, and form important commitments related to energy and climate goals ahead of COP27 in Egypt.

The gathering brought together, prominent global leaders some of which we can mention; H.E. Paul Kagame, President of the Republic of Rwanda, António Guterres, Secretary-General of the United Nations, Damilola Ogunbiyi, Special Representative of the UN Secretary-General and CEO of Sustainable Energy for All (SEforALL), Michael R. Bloomberg, founder of Bloomberg L.P. and Bloomberg Philanthropies and the UN Secretary-General's Special Envoy for Climate Ambition and Solutions, Francesco Starace, CEO and General Manager of Enel S.p.A among others.

The 2022 Forum also marked SEforALL's 10th anniversary of working with the UN to drive action toward the achievement of SDG7.

2-3 JUNE 2022

STOCKHOLM+50

A HEALTHY PLANET FOR THE PROSPERITY OF ALL – OUR RESPONSIBILITY, OUR OPPORTUNITY

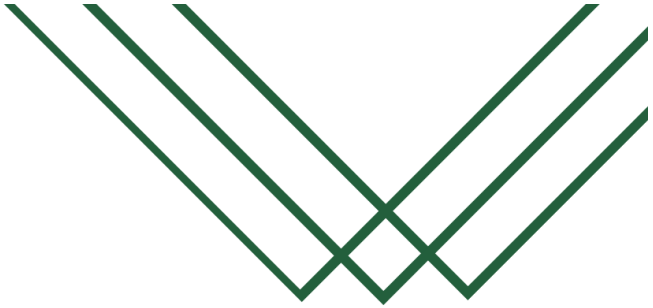


Archive: Hon. Minister of Environment, Dr. Jean d'Arc MUJAWAMARIYA speaking at Spanish Ambassador's residence in Kigali, before flying off to the conference

Rwanda through the Ministry of Environment participated in the Stockholm+50 (Spain) that took place in June 2022. 'Securing a healthy and prosperous planet for all means embarking on a joint journey where our footprint of today does not hamper the well-being of current and future generations'. Stockholm+50 presents an opportunity for co-creation and multi-stakeholder approach to accelerate implementation in the coming decade in areas fundamental to a sustainable future: the relationship between human and nature, what we invest in, and how resources are used and shared.

The conference drew ten recommendations as follows:

- Place human well-being at the center of a healthy planet and prosperity for all
- Recognise and implement the right to a clean, healthy and sustainable environment
- Adopt system wide change in the way our current economic system works to contribute to a healthy planet
- Strengthen nation implementation of existing commitments for a healthy planet
- Align public and private financial flows with environmental, climate and sustainable development commitments
- Accelerate system wide transformations of high impact sectors, such as food, energy, water, buildings and construction, manufacturing, and mobility
- Rebuild relationships of trust for strengthened cooperation and solidarity
- Reinforce and reinvigorate the multilateral system
- Recognise intergenerational responsibility as a cornerstone of sound policy-making
- Take forward the Stockholm+50 outcomes.



8.3.1.2 United Nations Climate Change Conference (COP26)





The 2021 United Nations Climate Change Conference (COP26) took place in Glasgow in November 2021. Rwanda as a party participated in this conference partnership with UNDP Rwanda and the NDC Partnership. The outcome of the conference on the side of the GoR focused on partnerships, negotiations and green investments.

Rwanda was selected as Pioneer Country for the Task Force on Climate Finance and will benefit from part of £100 million committed by the UK Government to the initiative.

The UK Government committed £12 million to support sustainable cooling, of which approximately £6 million will go towards the establishment of the Africa Centre of Excellence for Sustainable Cooling and Cold Chain in Kigali.

As an event on financing Rwanda's climate action plan, the German Government committed an additional €4.5 million to support the implementation of Rwanda's Nationally Determined Contribution under the Paris Agreement.

Rwanda's Minister of Environment co-chaired negotiations on Common Timeframes with Switzerland, a key theme of this year's conference focused on finding agreement on when countries report on plans and emissions reductions. Early indications for a 5-yearcommon timeframe look positive.

Rwanda signed an agreement with Italy that will see both countries work together to adapt to the impacts of climate change, reduce emissions and foster resilience.

Rwanda launched an Energy Compact on Clean Cooking, aiming to attract investment and reduce the use of wood fuel for cooking.

Right Hon. Prime Minister, on behalf of H.E. the President, delivered a National Statement during the World Leaders' Summit and High-level segment, calling for increased investment in climate action and ratification of the Kigali Amendment.

The delegation took part in more than 100 bilateral meetings, events and engagements to share Rwanda's green investment opportunities and ambitious climate action plan.

8.3.1.3 UN Climate Change Conference - COP27 & Launch of Ireme Invest

Rwanda called for greater climate action and shared the country's green investment opportunities at last year's UN Climate Change Conference (COP27) that took place in Sharm el-Sheikh, Egypt on November 7th, 2022. COP27 was an opportunity for Rwanda to promote Rwanda as an ideal destination for green investment, share the diverse opportunities that exist across Rwanda and highlight Rwanda's track record in delivering climate action and vision for a carbon neutral future by 2050.

It was in this conference, that Ireme Invest with an initial capitalization of $104M was launched by His Excellency the President of Rwanda, Paul Kagame. The facility to support the Private sector to access green finance is powered by the Rwanda Green Fund and the Development Bank of Rwanda (BRD) with support from a range of valued partners.

- Launch of Rwanda NDC Facility

Funded by the Federal Republic of Germany through the Rwandan-German Climate and Development Partnership, the Rwanda NDC Facility that will invest in climate action led by the public sector. The Facility was launched on the sidelines of COP27 in Sharm El-Sheik, Egypt.

Known formally as the NDC Facility, the new funding is available to government institutions working to implement Rwanda's climate action plan, also known as the Nationally Determined Contribution (NDC) to the Paris Agreement. It will be managed by the Rwanda Green Fund.

Commonwealth Heads of Government Meeting (CHOGM)



On the sidelines of the Commonwealth Heads of Government Meeting in Kigali, leaders from across the Commonwealth committed to working together to address climate change and keep alive the goal of limiting average global temperature rises below 1.5 degrees Celsius. The commitment was made at an event hosted by the Government of Rwanda and the Government of the United Kingdom, together with the COP26 Presidency.

"There is a lot Commonwealth Member States can do together to achieve the goals of the Paris Agreement."

The Commonwealth Heads of Government Meeting in Kigali was the greenest CHOGM ever.



8.3.1.4 Africa Protected Area Congress (APAC)

The IUCN Africa Protected Areas Congress (APAC), the first-ever Pan-African gathering of leaders, citizens, and interest groups focused on protected areas was held in Rwanda from 18-23 July 2022.

More than 2,000 participants from 52 African countries and beyond came together to address challenges and drive action for Africa's protected and conserved areas. They discussed the key role of these areas in safeguarding the continent's iconic wildlife, delivering vital ecosystem services, driving sustainable development and conserving Africa's cultural heritage and traditions. The participants adopted the Kigali Call to Action.

8.3.1.5 UN ENVIRONMENT ASSEMBLY (UNEA 5.2)





Hosted by the UNEP, the UNEA brings together representatives of the 193 member states of the UN, businesses, Civil Society Organizations and other stakeholders to agree on policies to address the World's most pressing environmental challenges. The fifth session of the UNEA took place online and in Nairobi on 28th February to 2nd March 2022. The overall theme for UNEA was "Strengthening Actions for Nature to achieve the sustainable Development Goals".

At the annual United Nations Environment Assembly in Nairobi in March this year, the world adopted a proposal from Rwanda and Peru to begin the process of creating an international, legally binding treaty to end plastic pollution. This milestone was described as the "biggest green deal since the Paris Agreement."

To ensure an ambitious and robust treaty is adopted, Rwanda and Norwaycreated a high Ambition Coalition to End Plastic Pollution together with Canada, Peru, Germany, Senegal, Georgia, Republic of Korea, UK, Switzerland, Portugal, Chile, Denmark, Finland, Sweden, Costa Rica, Iceland, Ecuador and France. Today, the coalition has almost 50 members.

The High Ambition Coalition to End Plastic Pollution will issue statements and work on essential elements and issues to inform the negotiations in order to develop a landmark treaty by 2024.

8.3.1.6 2021 Conference on Land Policy in Africa (CLPA 2021)

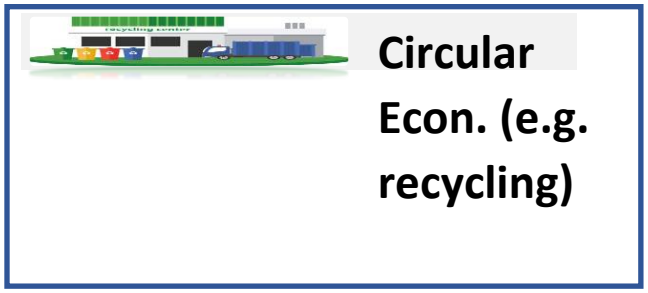
The Conference on Land Policy in Africa (CLPA) is organised bi-annually by the African Land Policy Centre (ALPC), a joint initiative of the African Union Commission, the United Nations Economic Commission for Africa, and the African Development Bank. The goal was to deepen capacity for land policy in Africa through improved access to knowledge and information on land policymaking and implementation. The CLPA is a platform for presenting research findings and focusing the attention of a comprehensive range of stakeholders on the issues and status of land policy development, implementation and monitoring in Africa. The CLPA also provides a unique opportunity to showcase emerging and promising practices and facilitate networking. Conference participants include researchers, governments (including parliamentarians), traditional authorities, farmers, civil society, private sector, land practitioners and development partners. The CLPA was first held in 2014, focusing on land, Investment and agriculture issues. The second edition of CLPA was held under a theme targeting youth, land and employment in November 2017. The 2019 CLPA focused on winning the fight against corruption in the land sector while the 2021CLPA took place in Kigali in November 2021 in hybrid format.

8.3.1.7 Forest Planting Season 2022

Each year Rwanda organised the Forest Planting Season from September to November. This year, 36 million trees were planted across the country through a campaign launched at the Kigali Special Economic Zone, Masoro marking the 47th anniversary of National Tree Planting Day. This year, emphasis was given to indigenous and agroforestry tree species for their ability to restore landscapes and promote biodiversity.

In 2022, over 50 tree species were distributed and planted including indigenous and agroforestry tree species. As part of afforestation and forest rehabilitation, more than 92,000 hectares of new forests were planted and degraded forests rehabilitated. This was done as part of efforts to increase and maintain the country's 30.4% forest coverage and contribute to the Bonn Challenge and AFR100 goals of restoring two million hectares of degraded land.

8.3.1.8 World Circular Economic Forum 2022 - From Africa to the World



The 6th World Circular Economy Forum (WCEF 2022) was held in Kigali and for the first time in Africa from 6-8 December. Co-organised by the Government of Rwanda through the Ministry of Environment, the forum explored pathways to transition toward an inclusive, low-carbon and climate resilient economy while tackling key societal challenges in partnership with African nations and the world at large.

The WCEF2022 discussions, outcomes and key findings showed that Africa can lead the world towards a new, more resilient economy – the circular economy. During the forum, the Kigali Call to Action for a Circular Future was endorsed by policy makers, businesses, financial institutions, philanthropies, NGOs, multilaterals, as well as the academia and research community, recognising the important role and opportunities circular economy can playin advancing Africa's green growth and low carbon pathway. Rwanda also launched its Circular Economy Action Plan during the WCEF2022.

8.4 Awards and Recognition

In 2022, the Climate, Environment and Natural Resources Sector and partners received a number of awards and recognition for efforts toward building a green and climate resilient nation, these included among others:

- NDC Investment Award given to President Paul Kagame in the category of Presidential Just Transition Champion
- NDC Investment Award for Agriculture NDC Investment Initiative of The Year in the category of Low Carbon Transformation for the Rwandan Tea Processing Sector
- Recognition of the City of Kigali as a Wetland City by the Ramsar Convention
- Hanga Pitch Fest Public Innovation Award Nomination of the Air Quality Monitoring System by the Rwanda Environment Management Authority, which connects users to real-time air quality data collected from 23 air quality monitoring stations across the country.

- Hanga Pitch Fest Public Innovation Award Nomination of the Ubutaka App by the National Land Authority, which prevents impersonation and double-selling of property using blockchain, fingerprint, camera, and signature pad technology for land ownership transfer processes.







CHAPTER 9



SUCCESS FACTORS, CHALLENGES AND LESSONS LEARNT

CHAPTER 9: SUCCESS FACTORS, CHALLENGES AND LESSONS LEARNT

9.1 Success factors

- The sustainable management of environment and natural resources and increasing the resilience against effects of climate change, including the implementation of the Rwanda's updated National Determined Contributions (NDCs) will contribute significantly to the achievement of national priorities and the Sustainable Development Goals (SDGs).
- For the effective planning and monitoring of how sectors consider environment and climate change issues into their plans, the Ministry of Finance and Economic Planning (MINECOFIN) and the Ministry of Environment (MoE) have introduced the use of environment and climate change monitoring statement to accompany the environment and climate change checklist for the fiscal year 2022/2023. The later includes a list of selected indicators aligned to Green Growth and Climate Resilience Strategy (GGCRS) and NDC (Checklist for Environment and Climate Change Mainstreaming). Both the environment and climate monitoring statement and the checklist are shared to sectors and Districts to mainstream environment and climate change priorities into their Single Action Plans.
- *Capacity building*: Capacity building encompasses the country's human, scientific, technological, organisational, institutional and resource capabilities. Here, various capacity building interventions have been implemented at individual, organisational and institutional levels over the concluded year.
- *Gender and youth*: The Government of Rwanda (GoR) has taken a policy and strategic decision to mainstream gender in the development process. To this end, MoE came up with Gender mainstreaming strategy to ensure that natural resources are well used with economic growth through active participation of each one. Building on the existing baseline of 128,496 disegragated jobs arleady created from the sector, additional 17,361 jobs were created, in 2021-22FY and segregted as 80 permanent; temporary 5,685 and casual: 11,596 (8,193 jobs: women and 9,168 jobs: men). Women and youth play an essential role in the management of natural resources, including soil, water, forests,energy and often have a profound traditional and contemporary knowledge of the natural world around them. For this reason, the Ministry of Environment give much attention on the differential cause and effect of environmental degradation on men and women; and importantly, the role of women as agents of change in mitigation and adaptation to the changing environment.

9.2 Challenges

- High competition on global climate funding. In order to succeed in this challenging landscape, the ministry together with the affiliated agencies need to continuously develop proposals with standards that have the potential to win out in the competition and attract external resource to Rwanda which will solve the limited funds issue to our applicants (Demand exceeds supply).
- Procurement delays. Request for extension, appeals, changes in the project design, low skills in contract management all these affected the initial timeline for delivery.
- High competition among forestry, land and water resource users. These sectors experience high demand in terms of limited available land for agriculture, forestry and agroforestry purposes to support biomass needs, water for irrigation, industry and domestic needs, as well as related requirements to sustain regulatory and provisioning functions of critical ecosystems, e.g. wetland, lakes and rivers. For example, agriculture and high population pressure have led to cultivation on fragile land on slopes of 30 degrees or greater, which are intended to be used for forestry activities to stabilize soils in accordance with the National Land Use Master Plan.
- Unproductive forest management practices. This is exacerbated by illegal cutting of forests, uneven distribution of forest resource over the country and limited space for plantations, low productivity of manmade forests, predominance of one species (Eucalyptus) and poor agroforestry practices. As a result, demand for forest products outweighs supply. According to EICV4, 99.3% of households utilize biomass energy for cooking, representing a dramatic shortfall against the Vision 2020 target of 50%. In addition to this, wood remains the widely used material in construction of houses, where 40.7% of houses have their walls built of tree poles and mud. Moreover, although Rwanda is almost reaching its target for 30% forest coverage, the quality and utility of these resources needs to be closely assessed within a sustainable forest management framework.
- Weak land use planning across competing interests and high levels of land degradation resulting in non-optimal utilization of resources. At present, national and District-level land use master plans are not aligned, and governance systems are not in place to rationalize, harmonize, monitor and enforce implementation. This is exacerbated by low levels of compliance with the national land use master pan. In addition, with 70% of incomes deriving largely rain-fed agriculture, Rwanda's land and soil resources are a cornerstone of its natural capital, but also one of the most critically degraded. Due to its steep and hilly topography, intensive farming, lack of fallowing and reduced mulching practices,

land degradation in Rwanda has been a well-known phenomenon for decades. Berry et al. 2003 estimated the cost of land degradation in Rwanda at 3.5% of agricultural GDP.[2]

- Climate related impacts from floods, landslides and droughts result in economic losses, and undermine economic development gains. This situation is further complicated by limited awareness, understanding of environmental, and climate change issues particularly in productive sectors. Scarcity of water resources adversely affects agricultural productivity and increases potential for rising epidemics and loss of life.
- Inadequate solid and liquid waste management particularly in urban areas contributes to the spread of waterborne diseases and other hygiene related illnesses, hence increasing cost for ensuring public health. As an example, in Kigali city, 60% of the population depends on shallow pit latrines and solid waste in dumped into open dumping sites. Rapid urbanization, as well as geographic and temporal disparities in water availability, makes it difficult to supply water to certain areas. Increased competition for water resources is compounded by weak coordination among sectors, and is evident in the planning and utilization of water resources. Cases of sectoral conflicts in water use have been reported at various levels, increasing the urgency for the implementation of a strong water governance framework. There is a need for the department in charge of IWRM to fast track some quick win projects proposed in the master plan that can improve in water resources management in Rwanda.
- The main source of water pollution in rural areas is the application of chemical agricultural inputs. The challenge is managing this pollution while simultaneously encouraging agricultural transformation and intensification for economic growth and sustainable livelihoods.
- Emerging issues with urbanization and industrial development, namely point and non-point pollution, including solid and hazardous/toxic waste management.
- Limited availability of modern meteorological infrastructure and competent personnel to facilitate rapid translation of weather and climate data and information into high-quality products tailored to user needs, guided by up-to-date research and monitoring that meets international standards, e.g. forecasting and early warning programs.

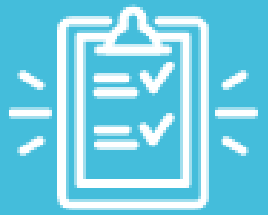
[2] L. Berry, J. Olson, and D. Campbell, 2003. Assessing the extent, cost and impact of land degradation at the national level: findings and lessons learned from seven pilot case studies.

9.3 Lessons learnt

- Mainstreaming of environment and climate change aspects into all national policies and programs has gained momentum in Rwanda. For example, environmental impact assessments are now a requirement for project feasibility studies. In addition, checklists for sectoral environmental assessments are issued each fiscal year to guide Central and Local government in mainstreaming environment and climate change into annual planning cycles.
- Collaboration, cooperation, involvement and partnership with key stakeholders like private sector, civil society, local communities and media are key for strengthening ownership and sustainability of ENR sector interventions. This collaboration has also solved the issue of limited resources in ENR sector interventions by pulling resources together from different sectors and stakeholders for a common goal.
- Awareness raising of those key stakeholders is very important considering the fact that services provided by environment are in many cases not clearly reflected in the market economy and therefore their values are underestimated or disregarded, for-example water resources and forest ecosystem services.
- Packaging information, marketing strategic products and knowledge management are also crucial for sustainable and effective interventions in ENR sector especially on policies, strategies, laws and be disseminated to Districts, sectors, Cells and key actions should be captured as key priorities, which should be thought about when it comes to planning and budgeting.
- Consequences of the Covid-19 pandemic. COVID-19 pandemic has disrupted Rwandan businesses, food security, poverty and has led to a negative economic impact on our country. In additional to that, due to social distancing and lockdowns, Covid-19 led to inadequate access to information and other resources that worsened the daily life and the economy in general.



CHAPTER 10



CONCLUSION

CHAPTER 10: CONCLUSION

A well-integrated approach in the management of environment, land, water, weather and climate and forestry resources has been sighted in stimulating economic growth and its impact on the people's livelihood.

The concluded fiscal year 2021/22 registered considerable achievements ranging from putting in place new regulatory instruments, master plans, implementation of environment/ecosystems rehabilitation and safeguard, building strong partnership towards climate finance, ratification of environmental related agreements to mention.

As a coordinating entity of Climate, Environment and Natural Resources, the ministry of environment over recent years, has gained momentum and achieved a lot of additional results. This especially relates to climate, as reflected in the recommendations of DPR 2022 on Climate Finance where Rwanda is spearheading the international debate such as in the Access to Climate Finance Task Force. Rwanda is designing innovative and pioneering instruments which serve as best-practice examples (such as the Sustainable Finance Roadmap, Ireme Invest, NDC-Facility, and Kigali Principles on Carbon Market, among others). This attracts increasing interest from international partners.

The new dynamism in this sector will be recommended to be captured in the formulation of NST-2 and the institution with the affiliated agencies stand ready to accompany the discussions in this regard.

REFERENCES



REFERENCES:

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Environment and Natural Resources Sector Strategic Plan (2017-2024)

Forest Cover Map (2019)

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IMIHIGO and Single Action Plan (2021-22) Implementation report

JSR Reports (Forward and Backward Looking) 2021/22

L. Berry, J. Olson, and D. Campbell, 2003. Assessing the extent, cost and impact of land degradation at the national level: findings and lessons learned from seven pilot case studies.

National Circular Economy Action Plan and Roadmap (2022)

Nationally Determined Contributions (2020)

State Of Environment Report 2021

The National Land Use Development Master Plan (2020-2050)

END

ANNEX 1

BUDGET EXECUTION PERFORMANCE FOR THE FY 2021/22

During the FY 2021/22, the budget execution performance was remarkable in all institutions in the sector as per the below table.

Programme/Sub-programme	Allocation (Frw)	Execution (Frw)	% Execution
MINISTRY OF ENVIRONMENT – MoE			
Programme1: Administrative and Support Services	**1,509,693,971**	**1,321,184,470**	**87.51%**
Sub Programme 1.1: Administrative and Support Services	1,509,693,971	1,321,184,470	**87.51%**
Programme 2: Environment, Water Resources, Land and Forestry Policy Development	**47,201,666**	**47,201,666**	**100%**
Sub Programme 2.1: Environment Policy Development	31,825,384	31,825,384	100%
Sub Programme 2.2: Water Resources Policy Development	5,000,000	5,000,000	100%
Sub Programme 2.3: Land Policy Development	5,376,282	5,376,282	100%
Sub Programme 2.4: Forestry Policy Development	5,000,000	5,000,000	100%
Programme3: Environment and Natural Resource Policy Development and Coordination	**710,270,265**	**507,432,210**	**71.4%**
Sub Programme 3.1: Sector Planning and Coordination	710,270,265	507,432,210	71.4%
RWANDA ENVIRONMENT MANAGEMENT AUTHORITY - REMA			
Programme 1: Administration and Support Services	**939,393,836**	**707,359,264**	**75%**
Sub Programme 1.1: Administrative and Support Services	939,393,836	707,359,264	75%
Programme 2: Environmental Management and Climate Change Resilience	**95,564,394**	**93,235,200**	**98%**
Sub Programme 2.1: Advocacy and Multilateral Environmental Agreements	13,950,000	13,803,200	99%
Sub Programme 2.2: Climate Change Vulnerability	95,564,394	95,564,394	98%

Sub programme 2.3: Environnemental Compliance and Enfoncement	64,250,000	62,430,000	97%
Sub programme 2.4: Environmental Analytics and Lake Kivu Resources Monitoring	17,364,394	17,002,000	98%
RWANDA FOREST AUTHORITY – RFA			
Programme 1: Administrative and support services	**663,557,435**	**658,740,974**	**99%**
Sub Programme 1.1.: Administrative and support services	663,557,435	658,740,974	99%
Programme 2: Terrestrial Ecosystems and Forest Resource Management	**455,114,927**	**455,114,927**	**100%**
Sub Programme 2.1: Forest Plantation Management and Agroforestry	455,114,927	455,114,927	100%
NATIONAL LAND AUTHORITY – NLA			
Programme 1: Administrative and Support Services	**1,629,993,319**	**1,517,806,338**	**93%**
Sub Programme 1.1: Administrative and Support Services	1,629,993,319	1,517,806,338	93%
Programme 2: Land administration and land use management	**443,000,000**	**412,123,262**	**93%**
Sub Programme 2.1: Land Use Planning and Management	443,000,000	412,123,262	93%
RWANDA GREEN FUND – FONERWA			
Programme 1: Environment and Natural Resource Policy Development and Coordination	**17,245,543,072**	**15,110,487,660**	**87.62%**
Sub Programme 1.1: Sector Planning and Coordination	17,245,543,072	15,110,487,660	87.62%
RWANDA METEOROLOGY AGENCY			
Programme 1: Administrative and Support Services	**1,265,935,058**	**1,249,674,342**	**98.7%**
Sub Programme 1.1: Administrative and Support Services	1,265,935,058	1,249,674,342	98.7%
Programme 2: Meteorological Operations	**138,807,325**	**110,408,593**	**79.5%**
Sub Programme 2.1: Technology and Information Services	10,380,760	10,380,760	100%
Sub Programme 2.2: Weather/Climate Services	128,426,565	100,027,833	77.9%

Programme 3: Public weather services	**154,519,677**	**154,104,787**	**99.7%**
Meteorological services standardisation and weather warning	154,519,677	154,104,787	99.7%
RWANDA MINES, PETROLEUM AND GAS BOARD			
Programme 1: Administrative and Support Services	**1,394,348,780**	**1,374,699,122**	**98.59%**
Sub Programme 1.1: Administrative and Support Services	1,394,348,780	1,374,699,122	98.59%
Programme 2: Mineral and Quarry Exploration and Exploitation	**3,693,541,111**	**3,621,132,971**	**98%**
Sub Programme 2.1. National Earth Potential Resources Evaluation	2,577,066,758	2,507,307,872	97.29%
Sub Programme 2.2. Mineral And Quarry Resources Value Addition	1,116,474,353	1,113,825,099	99.79%
RWANDA WATER RESOURCES BOARD - RWB			
Programme 1: Administrative and Support Services	**1,077,287,685**	**1,063,038,520**	**99%**
Sub Programme 1.1: Administrative and Support Services	1077287685	1,063,038,520	99%
Programme 2: Integrated Water Resources Management	**13,708,249,362**	**30,718,089,162**	**97.96%**
Sub Programme 2.1: Watershed Rehabilitation and Management	13,303,982,903	11,742,173,504	88%
Sub Programme 2.1: Water Resources Monitoring	404,266,459	388,284,373	96%