



MINISTRY OF  
ENVIRONMENT



RWANDA ENVIRONMENT  
MANAGEMENT AUTHORITY

# STRATEGIC PLAN

2022  
—  
2026

JUNE 2022









## FOREWORD

We are delighted to introduce the Rwanda Environment Management Authority Strategic Plan (2022-2026), which outlines the main priorities over the next five years.

The plan offers a great opportunity for the Rwanda Environment Management Authority (REMA) to deliver on its mandate.

In the wake of numerous challenges, such as limited availability of tools to measure air quality, low monitoring of implementation of Environmental and Social Impact Assessments (ESIA) and Environmental and Social Management Plans (ESMP) for compliance, lack of climate change early warning systems, lack of proper management of waste (solid and liquid waste) particularly in urban areas which contributes to the spread of waterborne diseases and other hygiene related illnesses, poor land use management with unplanned settlement leading to uncontrolled storm water and floods in urban areas, loss of biodiversity due to anthropogenic activities and climate change, the plan sets the stage to enhance strategic partnerships with a range of stakeholders and mobilise the required financial and human resources.

This Strategic Plan has key four areas around which our work will be focused over the duration of its implementation.

These are Ecosystem Rehabilitation/Restoration and Biodiversity Conservation, Climate Change Resilience, Compliance and Enforcement and Education, Awareness and Mainstreaming.

The Rwanda Environment Management Authority recognises that the protection of the environment requires synergy and combined efforts in order to be impactful and sustainable.

We will thus seek, through these areas, to empower the public to be responsive and effective in holding duty bearers to account in all our interventions.

We remain committed to and will continue to be guided by our Vision 2050, National Strategy for Transformation (NSTI), the National Policy on Environment and Climate Change and Nationally Determined Contribution (NDC). We are confident about making significant progress towards our ambitions over the period of this strategic plan.

We wish to thank our trusted partners, dedicated staff and committed Board of Directors who continue to subscribe to this vision, for their continued support.

We look forward to vibrant collaborations as we work to deliver the priorities contained herein and build a green Rwanda.

### **JULIET KABERA**

Director General, Rwanda Environment Management Authority







## EXECUTIVE SUMMARY

Environmental challenges and climate change are increasingly major barriers for Rwanda's to realise its aspirations to be a green, carbon neutral and climate resilient country by 2050.

As a result, the Government of Rwanda has prioritised the sustainable management of the environment through biodiversity conservation, forest and afforestation programs, pollution control, ecosystem restoration, environmental education and mainstreaming as well as climate change mitigation and adaptation. These efforts are important prerequisites for livelihood improvement and poverty eradication.

This strategic plan highlights the main priorities and resource requirements for the Rwanda Environment Management Authority over the next five years - from 2022 until 2026.

It sets out how the institution can effectively contribute to the attainment of NSTI objectives, the Sustainable Development Goals (SDGs) and Rwanda's Vision 2050.

It also takes into consideration lessons learned through the development and implementation of Vision 2020.

The overall objective of this strategic plan is to realise improved environment management and increased resilience to climate change for sustainable development and livelihoods.

This will be delivered through four outputs with the following focuses:

- Ecosystem Rehabilitation/Restoration and Biodiversity Conservation.
- Climate Change Resilience.
- Compliance and Enforcement.
- Education, Awareness and Mainstreaming.

The implementation of this Strategic Plan will require funding of Rwf 43,922,019,289, which is expected to come from the national budget, the Rwanda Green Fund, commitments from development partners and project funding.

The implementation of this strategic plan will be spearheaded by the Environment and Climate Change Sub-sector Working Group (ESWG) under the leadership of the Rwanda Environment Management Authority and the Co-Chair.

Active participation is expected from centralised and decentralised entities as well as NGOs, faith-based organisations and the private sector.



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## ABBREVIATIONS AND ACRONYMS

AAQS	Ambient Air Quality Standards
AFOLU	Agriculture, Forestry and Land Use
AU	African Union
BURs	Biennial Update Report
BER	Biodiversity Expenditure Review
BIOFIN	Biodiversity Finance Initiative
CBIT	Capacity Building Initiative for Transparency
CDDs	Community Driven Development
CO2	Carbon Dioxide
CH4	Methane
CoEB	Centre of Excellence in Biodiversity and Natural Resources Management
DFID	Department for International Development
EAC	East African Community
E&CC	Environment and Climate Change
EDA	Exploratory Data Analysis
ENR	Environment and Natural Resources
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FONERWA	Rwanda Green Fund
GCF	Green Climate Fund
GGCRS	Green Growth Climate Change Resilience Strategy
GHG	Greenhouse Gas

GoR	Government of Rwanda
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
LAFREC	Landscape Approach to Forest Restoration and Conservation
MEAs	Multilateral Environmental Agreements
M&E	Monitoring and Evaluation
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MININFRA	Ministry of Infrastructure
MoE	Ministry of Environment
MoH	Ministry of Health
MRVS	Monitoring, Review and Verification System
NAPs	National Adaptation Plans
NAMA	National Appropriate Mitigation Actions
NBSAP	National Biodiversity Strategy and Action Plan
NCCC	National Climate Change Committee
NDA	National Designated Authority
N2O	Nitrous Oxide
NCA	Natural Capital Accounts
NST-I	National Strategy for Transformation
PEA	Poverty and Environment Action
Pmm	Parts per million
RMA	Rwanda Meteorological Agency

REMA	Rwanda Environment Management Authority
RLMUA	Rwanda Land Management and Use Authority
RFA	Rwanda Forestry Authority
RUDP II	Rwanda Urban Development Second Project
RWB	Rwanda Water Resources Board
SIDA	Swedish International development Cooperation
SEORs	State of Environment Reports
SPIU	Single Project Implementation Unit
SWOT	Strengths, Weaknesses, Opportunities and Threats
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WAVES	Wealth Accounting and Valuation of Ecosystems services
WHO	World Health Organization
WtE	Waste to energy
°C	Degree/s Celsius

## CHAPTER 1: INTRODUCTION



There is no trade-off between economic growth and protecting our environment. They complement each other. When we protect our environment, we are also taking care of ourselves. The more we put efforts in conservation, the more benefits we amass. This means that the communities will even benefit more. “

H. E. PAUL KAGAME, PRESIDENT OF THE REPUBLIC OF RWANDA

Environmental challenges and climate change are increasingly major barriers for Rwanda's to realise its aspirations to be a green, carbon neutral and climate resilient country by 2050.

As a result, the Government of Rwanda (GoR) has prioritised the sustainable management of the environment through biodiversity conservation, forest and afforestation programs, pollution control, ecosystem restoration as well as climate change mitigation and adaptation.

The agriculture sector remains the main backbone of economic activity in Rwanda with 64% of the working population employed in agriculture. GDP from agriculture grew from Rwf 418.14 billion in 2006 to Rwf 570 billion in 2019, and

accounted for 26% of the overall GDP in 2020 (REMA, SEOR 2021).

According to the sixth National Report to the Convention on Biological Diversity (REMA, 2020), Rwanda is rich in biodiversity, which is mainly conserved in protected areas (national parks, natural forests, wetlands).

The Natural Capital Account Report (2017) suggests that over 74% of national territory is used for agriculture (including cultivated lands, cultivated marshlands, pasture and fallow, agroforestry, woodlots and others) (REMA, 2017).

Currently, Rwanda's forests cover 30.4 % of the surface area of the national territory of which plantation covers a greater share than natural forests.



Rwanda's water resources consist of freshwater systems of the country's lakes, rivers, marshlands and groundwater, all supplied by rainfall. The hydrological system is divided into two river basins, the Congo and Nile River basins - the latter contributing approximately 90 per cent of the total national surface water stock (REMA, 2019). In terms of climate, Rwanda has a temperate climate, with considerable differences across the country, owing to the varying topography: mountains, valleys, and low-lying areas influence the temperature and rainfall. Despite being in an equatorial zone, which would result in a tropical climate, Rwanda's current climate is temperate due to the moderating effects of its hilly topography. It is typically cooler and wetter in the west, mainly because of the high mountains, and warmer and drier in the east, where the elevation is lower (Future Climate for Africa, 2016). The country is divided into four main climatic regions: eastern plains, central plateau, highlands, and the

Lake region (around Lake Kivu). The warmest annual average temperatures are found in the eastern plateau (20°C to 21°C) and Bugarama Valley (23°C to 24°C), and cooler temperatures in the central plateau (17.5°C to 19°C) and highlands (less than 17°C) (USAID, 2012). Historically, the eastern plains have received annual rainfall of between 700 mm and 1,100 mm, with average annual temperature between 20°C and 22°C. The central plateau region has historically received rainfall of between 1,100 mm and 1,300 mm, with an annual average temperature of between 18°C and 20°C. The highlands, including the Congo-Nile Ridge and volcanic mountain chains of the Virunga Massif, have historically received rainfall of between 1,300 mm and 1,600 mm, with annual average temperatures ranging between 10°C and 18°C. Regions around Lake Kivu and the Bugarama have displayed a historic trend of annual rainfall of between 1,200 mm and 1,500 mm, and annual mean temperature between 18°C and 22°C (REMA, 2018).

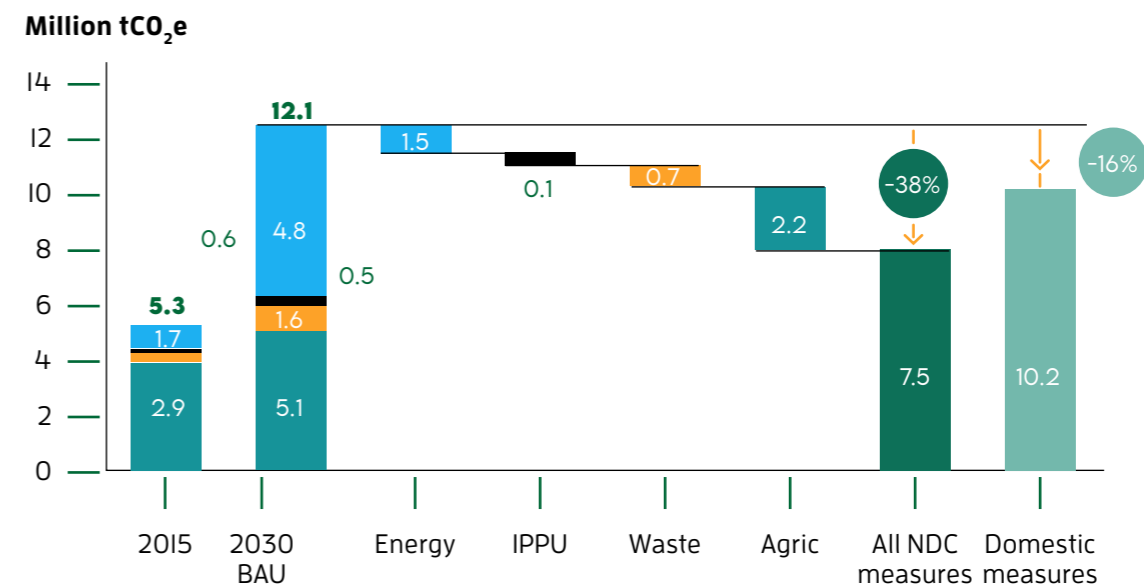
Like much of East Africa, Rwanda has two rainy seasons, the 'long' rains from March to May, and the 'short' rains from September to December. However, there are large variations in rainfall between years, driven by global and regional weather systems (Future Climate for Africa, 2016). Shifts in the timing of precipitation, which have important implications for agriculture, natural resources management, sanitation and hygiene, as well as hydroelectricity, have been reported in certain regions (USAID, 2012). In the last half-century, with the onset of climate change, there have already been noticeable changes in Rwanda's average temperature. A general progressive increasing trend in temperature, i.e. warming, has been observed across the country for the period of 1961-2016. Specifically, observations indicate a rise in average annual temperatures of about 0.7-0.9°C since 1950. For the period between 1961 and 2016, annual rainfall in Rwanda exhibited very high levels of fluctuations.

Studies suggest that mean rainfall dominantly decreased in January, February, May and June but at the same time there has been a dominant trend of increasing rainfall in the remaining months of the year across the country. Thus, Rwanda's natural climate is already variable, and prone to extremes. Rainfall varies throughout the year, and across the country, resulting in floods and landslides in the western and northern regions, but droughts in the east. Flooding has caused loss of human lives, and damaged crops and infrastructure. Similarly, historical drought events

have caused famines (MIDIMAR, 2015). The impacts of these hazards are exacerbated due to Rwanda's high population density. Addressing these current risks is a priority for early adaptation efforts (Future Climate for Africa, 2016). Climate change is expected to further alter temperature and rainfall, and likely amplify the kinds of extreme events, such as flooding and drought, that Rwanda already experiences (Future Climate for Africa, 2016). Rwanda does not have projections of its greenhouse gas emissions (GHG) through mid-century.

It does, however, have projections for 2030 - the end of the current NDC period (Republic of Rwanda, 2020). Rwanda's total GHG emissions in its baseline year of 2015 were 5.3 million metric tonnes of CO<sub>2</sub>e (MtCO<sub>2</sub>e). If emissions continue to rise on a business-as-usual trajectory, this pathway would lead Rwanda to annual GHG emissions of 7.42 MtCO<sub>2</sub>e in 2020, 9.61 MtCO<sub>2</sub>e in 2025, and 12.1 MtCO<sub>2</sub>e in 2030. The greatest increases in emissions over the 2020-2030 period are expected to come from the energy and agriculture sectors (NDC, May 2020).

Figure I: Rwanda's NDC commitments by sector, to reduce GHG emissions from 2030 BAU levels<sup>1</sup>



<sup>1</sup> Colours represent sector contributions for Energy (blue); IPPU (black); Waste (yellow) and AFOLU (teal). Dark green represents all NDC measures, while light green represents domestic measures.

(Source: Rwanda Updated Nationally Determined Contribution, 2020)



Climate change poses a threat to all sectors of the Rwandan economy, and efforts towards preparedness are necessary in every sector.

However, the nature of some sectors (their raw materials or inputs, systems and processes, and outputs or contributions) is such that certain sectors are substantially more at-risk to climate change than others.

The Government of Rwanda is committed to taking urgent action to mitigate and adapt to the effects of climate change. As a Party to the United Nations Framework Convention on Climate Change (UNFCCC), the country seeks to contribute to the ambitious goal of limiting temperature rise to 2°C with efforts to reach 1.5°C agreed under the Paris Agreement

Rwanda submitted its Third National Communication (TNC) in September 2018, reporting on its national GHG inventory up to the year 2015.

The country is currently preparing its first Biennial Update Report (BUR) and an updated GHG inventory. Rwanda also submitted its updated NDC Climate Action Plan in mid-2020.

## ➔ PROCESS TO DEVELOP THE STRATEGY

The following activities were undertaken to develop the Rwanda Environment Management Authority Strategic Plan:

**DESK REVIEW:** The development of this strategic plan involved a literature review of documents including international instruments related to environment and climate change, national policies, strategies, research reports, annual reports and legal instruments.

**CONSULTATION:** Consultations were conducted with key stakeholders involved in environment management and climate change mitigation and adaptation. The consultation was done with the REMA technical team and leadership. Other consultations were done through E&CC thematic working group workshops as well as the REMA Board of Director and staff.

**WORKSHOPS:** Workshops were conducted to validate the inception report indicating the methodology for development of the strategic plan and the expected outcome, outputs and activities.

**DATA COLLECTION, PROCESSING AND ANALYSIS:** Qualitative data were collected through different consultation and review of different documents.

A SWOT analysis was done. The analysis of key findings was done using exploratory data analysis (EDA) by grouping items with similar characteristics.

The weaknesses and threats as well as strengths and opportunities were respectively grouped to inform the proposed interventions.

The actions for improvement were grouped, categorised and structured for meaning, and similar actions of interventions were transformed into strategic interventions. In the same way, similar strategic actions were grouped to produce outputs.

Related outputs were grouped into an outcome and the related outcome was grouped to generate related objectives and priority areas that contributed to defining the goal of the strategy. This approach produced the results chain.

### ESTABLISHING STRATEGY FRAMEWORKS:

In order to facilitate smooth implementation and monitoring and evaluation of the strategic plan, different frameworks have been developed, including the implementation of M&E frameworks as well as costing and budgeting. The costing and budgeting were done using the activity-based costing model.

# 2

## CHAPTER 2: THE ENVIRONMENT AND CLIMATE CHANGE SUB-SECTOR

This section describes international, regional and national instruments related to environment and climate change as well as efforts by the Government of Rwanda to protect the environment and foster climate change adaptation and mitigation.

### 2.1 POLICY CONTEXT

#### CONSTITUTION OF THE REPUBLIC OF RWANDA

The Constitution of the Republic of Rwanda as revised in 2015 guarantees the right to a clean environment for every citizen and other people living in Rwanda, and imposes on the state and population the responsibility for keeping the environment clean and pollution-free.

#### VISION 2050

Rwanda's Vision 2050 sets a new pathway that will lead the country to the living standards of upper middle income by 2035 and high-income status by 2050. Vision 2050 has the overarching objectives of promoting economic growth and prosperity and high quality of life for Rwandans.

It is anchored around the five pillars of Human Development, Competitiveness and Integration, Agriculture for Wealth Creation, Urbanisation and Agglomeration

as well as Accountable and Capable State Institutions..

#### SUSTAINABLE DEVELOPMENT GOALS

Adopted by the General Assembly of the United Nations in 2015, the 17 Sustainable Development Goals (SDGs) aim to achieve a better and more sustainable world for all by 2030.

These goals are a call for action to address global challenges such as poverty, inequality, climate change, environmental degradation, and justice.

Rwanda adopted the SDGs and has incorporated them into national strategic documents including policies, plans and programmes. The SDGs 6, 11, 13, 14 and 15 are especially related to the Environment and Climate Change Sub-Sector..

#### NATIONAL STRATEGY FOR TRANSFORMATION

The National Strategy for Transformation (NSTI), which is also the Seven Year Government Programme (7YGP), comes



at a unique moment in the country's development trajectory which will see the crossover from Vision 2020 towards Vision 2050.

This strategy lays the foundation for decades of sustained growth and transformation that will accelerate the move towards achieving high standards of living for all Rwandans.

Environment and Climate Change is a cross-cutting area of the strategy with a focus on improving cross sectoral coordination to ensure smooth implementation of environmental policies and regulations.

In this regard, critical sectors identified for strengthening include agriculture, urbanisation, infrastructure and land use management.

### ENVIRONMENT AND CLIMATE CHANGE POLICY

The National Environment and Climate Change Policy aims to ensure that Rwanda has a clean and healthy environment, is resilient to climate variability and change, and supports a high quality of life for its society.

### GREEN GROWTH AND CLIMATE RESILIENCE STRATEGY (GGCRS)

Rwanda's Green Growth and Climate Resilience Strategy (GGCRS) was adopted in 2011 and lays the foundation for the country's environmental priorities through 14 Programmes of Action that span different sectors.

These include sustainable intensification of small scale farming, agricultural diversity of markets, sustainable land use, integrated water resource management, a low carbon energy grid, small-scale energy access in rural areas, disaster management and disease prevention, green industry and private sector development, climate compatible mining, resilient transport systems, low carbon urban systems, ecotourism, conservation and payment of ecosystem services, sustainable forestry, agroforestry and biomass, and climate data and projections.





## 2.2 LEGAL FRAMEWORKS

Over the years, a number of laws have been adopted to govern the management of the environment in Rwanda. Examples are highlighted here below, however the list is not exhaustive.

- Law NO 58/2008 10/09/2008 determining the organisation and management of aquaculture and fishing in Rwanda.
- Law NO 62/2008 10/09/2008 putting in place the use, conservation, protection and management of water resources regulations.
- Law NO 57/2013 10/08/2013 authorising the accession of Rwanda to the International Union for Conservation of Nature and Natural Resources (IUCN).
- Law NO 58/2013 10/08/2013 authorising the ratification of the Treaty of 05 February 2005 on the conservation and sustainable management of forest ecosystems in Central Africa and establishing the Central African Forests Commission (COMIFAC).
- Law NO 63/2013 of 27/08/2013 determining the mission, organisation and functioning of Rwanda Environment Management Authority (REMA).
- Law NO 064/2021 of 14/10/2021 governing biodiversity in Rwanda, 2013.
- Law NO 45/2015 15/10/2015 establishing the Gishwati-Mukura National Park, 2015.
- Law NO 18/2016 18/05/2016 governing the preservation of air quality and prevention of air pollution in Rwanda.
- Law NO 39/2017 16/08/2017 establishing the National Fund for Environment and determining its mission, organisation and functioning.
- Law NO 48/2018 13/08/2018 on Environment
- Law NO 17/2019 10/08/2019 relating to the prohibition of manufacturing, importation, use and sale of plastic carry bags and single-use plastic items.
- Law NO 71/2019 29/01/2020 establishing Rwanda Water Resources Board (WRB) with the mandate to ensure availability of enough and well managed water resources for sustainable development.
- Law NO 72/2019 29/01/2020 establishing Rwanda Forestry Authority (RFA) with the mandate to ensure growth of forest resources, their management and protection for sustainable development.
- Law NO 27/2021 10/06/2021 governing land in Rwanda

## 2.3 ENVIRONMENTAL GOVERNANCE IN RWANDA

### INSTITUTIONAL FRAMEWORK

- The Ministry of Environment (MoE) is the nodal ministry for formulation of relevant policies and laws regulating the protection of the environment. MoE provides overall coordination as Chair of the Environment and Natural Resources Sector Working Group (SWG), which is a forum that facilitates dialogue, ownership, and accountability of the development agenda by all stakeholders at the sector level and brings together central and local government institutions, development partners, civil society and the private sector involved in the sector or with an interest in the sector's development.
  - The Rwanda Environment Management Authority (REMA) is the overall authority for coordinating and regulating the protection, conservation and management of the environment in Rwanda. REMA is designated as the national competent authority for all international environmental treaties and agreements on the environment. REMA is also the National Designated Authority (NDA) for Green Climate Fund (GCF).
  - The Rwanda Development Board, through its division in charge of investment, provides Environmental Impact Assessment (EIA) certification, advice and ensures compliance as part of investor facilitation.
- In addition, RDB is responsible for wildlife conservation and tourism and oversees the country's national parks.
- The Rwanda Green Fund (FONERWA) invests in public and private projects that have the potential for transformative change and that align with Rwanda's commitment to building a strong climate resilient and green economy. The Fund also provides technical assistance to ensure the success and impact of these investments.
  - The Rwanda Forestry Authority (RFA) ensures the growth of forest resources, their management and protection for sustainable development.
  - The Rwanda Land Management And Use Authority (RLMUA) implements national policies, laws, strategies, regulations and government resolutions related to the management and use of land.
  - The Rwanda Water Resources Board (RWB) is implementing policies, laws, strategies, research and programmes that improve the quality and productivity of water resources.
  - The position of Environment Officers has been created at the District level with the responsibility of integrating environmental issues into district development plans, and ensuring those issues are prioritised and addressed by providing technical guidance to relevant District Units.



At the local level, environmental committees have been formed, in accordance with the provisions of the Organic Law on Environment (No. 48/2018).

- Civil Society Organisations (CSOs) and the private sector are increasingly engaged and are reliable partners on resource mobilisations and implementation of activities in order to achieve targets set in the Environment and Climate Change Sub-Sector.

### 2.3.2 MULTILATERAL ENVIRONMENTAL AGREEMENTS

A multilateral environmental agreement (MEA) is a legally binding agreement among three or more nations which allows them to reach an environmental goal.

Rwanda's environmental protection obligations do not stop at our borders and so we are committed to supporting, implementing and meeting our targets through international agreements.

Some of the MEAs ratified by Rwanda include:

- Convention on International Trade in Endangered Species of Wild Fauna and Flora
- Convention on Biological Diversity
- United Nations Convention to Combat Desertification
- United Nations Framework Convention on Climate Change
- Stockholm Convention on Persistent Organic Polluting Agents
- Rotterdam Convention on the Prior Informed Consent Procedure for

Certain Hazardous Chemicals and Pesticides in International Trade

- Basel Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposal
- Convention on the Conservation of Migratory Species of Wild Animals
- Vienna Convention for the Protection of the Ozone Layer
- Ramsar Convention on Wetlands
- Minamata Convention on Mercury
- Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa

### 2.3.3 KEY ACHIEVEMENTS IN THE ENVIRONMENT AND CLIMATE CHANGE SUB-SECTOR

The Environment and Climate Change Sub-Sector has recorded a number of achievements in environment protection and restoration as well as in climate change adaptation and resilience.

#### ENVIRONMENT AND CLIMATE AWARENESS AND MAINSTREAMING

- In 2012, Rwanda established the Rwanda Green Fund (FONERWA) to support the best public and private projects that have the potential for transformative change and that support Rwanda's commitment to building a green economy. The fund has mobilised USD 217 million for climate and environment investments.

- The creation of the Cleaner Production and Climate Innovation Centre to foster cleaner production initiatives, climate innovation technologies and the circular economy.
- Through Integrated Development Plan Model Villages and Green Villages, new settlements have been built with a range of environmentally friendly components including clean energy (solar and biogas), sustainable land management and water harvesting facilities.
- The Green Schools programme was established and later adopted by the Ministry of Education.
- The private sector is working with the government and civil society organisations on initiatives from forest management to e-waste recycling and solid waste management. Businesses are also investing in renewable energy and green technologies, such as electric mobility and water systems that are improving lives. The promotion of green homes, sustainable transport, green cities, waste management and recycling are all areas in which the private sector is involved.
- Establishing an online portal as a hub for information on climate change in Rwanda.
- Developing a green city toolkit and roadmap, identification of a pilot site for the Green City Kigali and mobilising USD 60 million in resources for the initial pilot
- Rwanda was selected for project development support under the Pilot Programme for Climate Resilience (PPCR) and Forest Investment Programme (FIP)

- Annual assessments on the results of mainstreaming environment and climate change into plans and programmes as well as implementation outcomes
- Creation of the Environment and Climate Change Budget Statement
- Various training sessions conducted on environment and climate change themes and topics
- Development of environment and climate change training aids for different levels of formal education

#### CLIMATE CHANGE RESILIENCE

- A national greenhouse gas (GHG) emissions inventory was conducted for the period of 2006-2015 from four sectors including energy, industrial processes and product use (IPPU), agriculture, forestry and land use (AFOLU) and waste.
- REMA has put in place a GHG working group responsible for estimating GHG emissions in Rwanda
- 23 projects which fix efficient waste water treatment systems monitored
- Trainings on GHG control conducted
- Eight CDM projects monitored and reported on
- Community Driven Development programs have been financed to reduce vulnerability to climate change
- Climate change risk zones map produced



## BIODIVERSITY CONSERVATION AND ECOSYSTEM RESTORATION/REHABILITATION

- The country has fully achieved its Vision 2020 targets of increasing forest cover to 30% of its total land area. The current forest cover according to a 2019 forest cover mapping report is 724,695 ha, (30.4%).
- The creation of Gishwati-Mukura National Park and designation as a UNESCO Biosphere Reserve.
- The continued increase in the population of the endangered mountain gorilla, with Rwanda now hosting half of the existing global population estimated at 1,004 individuals.
- The historic re-introduction of Eastern black rhinos and lions into Akagera National Park.
- The protection and increase in populations of Eastern Chimpanzee, Golden Monkeys, and the Grey Crowned Cranes due to implementation of different conservation plans.
- The rehabilitation/restoration and creation of Nyandungu Urban Wetland and continued protection of other wetland systems include Akagera, Kamiranzovu and Rugezi.
- Government biodiversity expenditures increased from RWF 10.17 billion in 2011/12 to RWF 11.5 billion in 2016/17, representing a cumulative growth rate of 2.5 percent annually. Similarly, expenditures by non-government implementing entities increased

annually from 4.6 billion RWF to 5.7 billion RWF annually between 2011/12 and 2016/17 (REMA, UNDP and Global BIOFIN 2017).

- Establishment of a UNESCO Category 2 Centre of Excellence in Biodiversity and Natural Resource Management in Rwanda, approved by the UNESCO General Conference in November 2021 to support biodiversity and natural resources research and monitoring.
- Annual Biodiversity Information Management Forum (BIMF) hosted by the Ministry of Environment in collaboration with the Centre of Excellence in Biodiversity and Natural Resource Management, which brings together data holders and data users to support evidence-based policy and management for environmental sustainability, biodiversity conservation and climate adaptation.

## SUSTAINABLE FORESTRY

- Forest plantations have steadily increased from 301,500 hectares in 2010 to 387,425 hectares in 2019, representing an increase of 85,925 hectares or 28.5% (MoE, 2019). According to the 2019 forest cover mapping report, plantations accounted for 53.5% of the forested area.

## ENVIRONMENT ENFORCEMENT AND COMPLIANCE

- 1,525 inspections conducted to assess wetlands degradation, illegal use of plastics, industrial operations, improper disposal of expired and toxic goods and substances, and construction in rivers and lakes buffer zones.

- Reduction in the use of single-use plastics countrywide and establishment of guidelines on the procedures and conditions for eligibility to grant exceptional permission to manufacture, use, import or sell single-use plastic items or pack goods in single-use plastics
- Countering illegal utilisation of buffer zones
- Closer control of environmental enforcement and compliance in the productive sector mainly in agriculture, mining, and industry.
- Establishment of air quality control program with 38 air quality sensors installed countrywide including 28 located in the City of Kigali with an online air quality index application in use showing air quality information from the sensors on a real-time basis.
- Intensive monitoring and enforcement of restrictions of illegal dumping in accordance with laws and guidelines
- Involvement of Rwanda Police team in enforcement of environmental laws and regulation through joint monitoring with REMA staff

## RESEARCH AND STUDIES

- Research conducted includes, but is not limited to, the following:
- Baseline of National Climate Change Vulnerability Index produced in 2015 and follow up study in 2018, published in 2019

- Assessment of integration level of key environmental targets into Districts Performance Contracts completed
- Rwanda Environment Management Authority Communication Strategy
- National Adaptation Plans (NAPs) Feasibility
- Biennial Update Report (BUR)
- Sectoral GHG Inventory Reports
- Management Plan for Invasive Species
- Compliance Environmental Audit Reports of eight industries with high pollution potential
- State of Environment and Outlook Reports
- Integrated Study of Wastewater Treatment Systems in Rwanda
- Impact of Fertiliser Use in Rwanda (Case of Rweru-Mugesera Wetland Complex)
- Economic Valuation of Ecosystem Services (Akagera, Kigali and Rugezi wetland complexes and forest ecosystems)
- Study to establish a national list of threatened terrestrial ecosystems and species in need of protection
- Rwanda National Compendium of Environment Statistics



- Inventory of Sources of Air Pollution in Rwanda
- Various research studies on the impact of landscape restoration efforts

### MANDATORY REPORTS

- National Report to the Convention on Biological Diversity
- National Implementation Plan for the Basel Convention on the control of transboundary movement of hazardous waste and their disposal
- National Communications under the United Nations Framework Convention on Climate Change (UNFCCC)
- Assessment report on policy and legal framework on promotion of investments in green technologies and innovations is produced
- Report of sectoral analysis of National Appropriate Mitigation Actions (NAMA)
- National reports on CITES

### MAJOR PROJECTS

- A number of major projects to manage, protect and restore the environment, mainstream environment and climate change into policy making and programming, pollution control as well as foster climate change adaptation and mitigation have been implemented, including the following:
- **POVERTY AND ENVIRONMENT ACTION FOR SDGS (PEA):** Mainstreaming environment, climate change and poverty reduction into national strategies, policies strategies at District level

- **RWANDA URBAN DEVELOPMENT SECOND PROJECT (RUDP II):** Rehabilitation of urban wetlands for flood management, biodiversity enhancement and green space for greenhouse gas emission reduction and knowledge sharing

- **GREEN AMAYAGA FOREST LANDSCAPE RESTORATION PROJECT:** To secure biodiversity and carbon benefits while simultaneously strengthening the resilience of livelihoods, through forest landscape restoration and upscaling clean technologies in Kamonyi, Ruhango, Nyanza, and Gisagara District of Mayaga region

- **BUILDING THE CAPACITY OF RWANDA'S GOVERNMENT to ADVANCE THE NATIONAL ADAPTATION PLANNING PROCESS:** To strengthen the technical and institutional capacity in Rwanda to plan, fund, implement and monitor climate change adaptation in the medium and long-term thus advancing the NAP process. The project is implemented in Nyagatare, Kirehe, Rusizi and Kigali.

- **BUILDING RESILIENCE OF COMMUNITIES LIVING IN DEGRADED FOREST, SAVANNA AND WETLANDS OF RWANDA THROUGH AN ECOSYSTEM-BASED ADAPTATION APPROACH (LDCF II):** Being implemented in Kirehe, kayonza, Bugesera, Ngororero, Musanze and Gasabo districts.

- **CAPACITY BUILDING INITIATIVE FOR TRANSPARENCY (CBIT):** The objective of the project is to strengthen the capacity of institutions in Rwanda to fulfil the transparency requirements of the Paris Agreement. The project intervention areas include government, non-government and private institutions in energy, agriculture, forestry, land use and waste sector.

- **BIANNUAL UPDATE REPORT (BUR) PROJECT:** National climate change reporting, sector energy, agriculture, forestry, land use and waste

- **OZONE PROJECT:** Control, monitor, and phaseout of the ozone depleting substances

- **SUSTAINABLE URBAN WETLAND DEVELOPMENT WITHIN KIGALI:** To build a resilient City of Kigali through rehabilitation of degraded urban wetlands

- **NYANDUNGU URBAN WETLAND ECO TOURISM PARK PROJECT:** Nature reserve and urban park created to increase biodiversity, reduce flood risk, manage pollution, raise awareness of wetland conservation and create green jobs.

- **LANDSCAPE APPROACH TO FOREST RESTORATION AND CONSERVATION PROJECT (LAFREC):** Forestry friendly and climate change resilient restoration of Gishwati-Mukura landscape including upgrading and sustainable management of Gishwati and Mukura forest reserves, forest restoration and land husbandry in the Gishwati landscape and building sustainable and resilient livelihoods, flood forecasting and preparedness Impact monitoring study on land rehabilitation techniques and the dissemination of knowledge products on landscape management to target audience.

- **IMPROVING THE EFFICIENCY AND SUSTAINABILITY OF CHARCOAL AND WOOD FUEL VALUE CHAINS PROJECT (NDF PROJECT):** Fostering improved woodlot management, improved seed quality, assistance for more efficient charcoal production and biomass processing and support for promotion of alternative sources of energy.

- **RWANDA BIODIVERSITY INFORMATION SYSTEM (RBIS.UR.AC.RW) PROJECT:** an open-access web platform using open-source software to support land use planning and monitoring of biodiversity and ecosystem functioning through biological indicators.



## CHAPTER 3: RWANDA ENVIRONMENT MANAGEMENT AUTHORITY STRATEGIC PLAN

### 3.1 SITUATION ANALYSIS FOR THE ENVIRONMENT AND CLIMATE CHANGE SUB-SECTOR

The Environment and Climate Change Sub-Sector situation analysis was done through review of relevant documents and consultation with key stakeholders (REMA, SPIU, ECC Thematic Working Group, and the REMA Board of Directors) to identify strengths, weaknesses, opportunities and challenges of the subsector.

#### STRENGTHS

- Rwanda has ratified a range of multilateral agreements which demonstrate a clear political will to work with other nations to deal with environmental challenges and climate change
- Availability of effective legal frameworks and national standards
- Well defined national policies which guide and provide strategic direction on environment protection
- An institutional framework with mandates and functions covering various sectors and sub-sectors relevant for environment and climate change
- Innovations and best practices from previous programs
- Membership and partnerships with potential international and regional bodies involved in the sector
- Membership and partnerships with potential international and regional bodies involved in the sector

#### WEAKNESSES

- Limited financial resources for the implementation of all proposed strategic actions related to environmental protection and climate resilience
- Irrational exploitation of natural resources which results in soil degradation and erosion
- High dependency on biomass for fuel and limited use of renewable energy
- Insufficient capacity in data collection and data analysis to understand and inform the community through early warning systems and dynamic information networks
- Low level of climate change awareness due to the fact that climate change is a relatively new subsector
- Slow uptake and low degree of ownership affecting good sustainability of projects
- Poor behaviour or mindset affecting adoption of environmental friendly attitudes by communities

#### OPPORTUNITIES

- Strong political will and support
- Goodwill of the general public, stakeholders and development partners to support the environment and climate change subsector.
- Existence of the Rwanda Green Fund (FONERWA) with a clear mission to mobilise, and manage funds from private, public through bilateral and multilateral partnerships to be used in the field of environment and climate change
- An evolving regional and international cooperative framework on fighting climate change
- Technological innovations to support management of the environment and climate change
- Growing involvement of the private sector in green growth investments

#### THREATS

- Existence and increasing spread of invasive and alien species
- Increase in electronic, industrial and nuclear/radioactive waste
- Rwanda is suffering the effects of climate change and environmental degradation, which is affecting agriculture and perpetuating food insecurity through extended droughts and floods
- The increasing negative impact of climate change that affects directly and indirectly environment management
- Limited awareness on environment and climate change across all sectors including communities

- Insufficient budget allocation for activities to implement environment and climate change actions
- Climatic effects from floods, landslides and droughts result in loss of human life, economic losses, and undermine economic development gains

### 3.2 KEY CHALLENGES

From the situation analysis, the following key challenges have been identified:

- Low implementation of devolved environmental responsibilities at local levels
- Inadequate capacity for monitoring the implementation of ESIA/ESMP for compliance
- Limited capacity in climate change early warning systems to prevent its negative effect and emergency disasters
- Climate change impacts including floods, landslides and droughts pose economic losses compounded through loss of life, damage to property and infrastructures, soil erosion and degradation and scarcity of water resources - all adversely impacting human well-being and agricultural productivity.
- Limited capacity in proper management of waste (solid, liquid waste and toxic and hazardous waste) particularly in urban areas which contributes to the spread of waterborne diseases and other hygiene related illnesses, hence the increase in cost for ensuring public health
- Inadequate/insufficient funding of the environment and climate change sub-sector especially as a cross-cutting issue



- Limited availability of tools and equipment to measure air and water pollution in different pollutant areas (industries, urban areas)
- Poor land use management with unplanned settlement leading to uncontrolled storm water and floods in urban areas
- Loss of biodiversity due to anthropogenic activities and climate change

### 3.3 STRATEGIC FRAMEWORK

#### 3.3.1 VISION

All sectors of Rwandan society value and undertake sound environmental management and rational use of natural resources to contribute to the national aspirations for sustainable development.

#### 3.3.2 MISSION

The mission of the Rwanda Environment Management Authority is to promote and ensure the protection of the environment and sustainable management of natural resources through decentralised structures of governance and to seek national positions on emerging global issues to enhance the well-being of Rwandans.

#### 3.3.3 CORE FUNCTIONS

The core function of the Rwanda Environment Management Authority is to provide strategic orientation for sound environmental management including developing programmes that prevent or control environmental pollution and climate change, specifically:

- To implement government environmental policy
- To advise the government on policies, strategies and legislation related to the management of the environment as well as the implementation of environment related international conventions, whenever deemed necessary to conduct thorough inspection of environmental management in order to prepare a report on the status of environment in Rwanda that shall be published every two years
- To put in place measures designed to prevent climate change and cope with its impacts
- To conduct studies, research, investigations and other relevant activities in the field of environment and publish the findings
- To closely monitor and assess development programs to ensure compliance with the laws on environment during their preparation and implementation
- To participate in the preparation of activities strategies designed to prevent risks and other phenomena which may cause environmental degradation and propose remedial measures
- To provide, where it is necessary, advice and technical support to individuals or entities engaged in natural resources management and environmental conservation
- To prepare, publish and disseminate education materials relating to guidelines and laws relating to environmental management and protection and reduce environmental degradation risks

- To monitor and supervise impact assessment, environmental audit, strategic environmental assessment and any other environmental study. REMA may authorise, in writing, any other person to analyse and approve these studies.
- To establish relationships and cooperate with national and international institutions and organisations in charge of the environment and any other bodies that may help REMA to fulfil its mission

#### 3.3.4 GUIDING PRINCIPLES

The following principles will guide the implementation of this Strategic Plan.

##### PRECAUTIONARY PRINCIPLE

It is important to protect our environment and reduce degradation of the environment. Precaution or preventive measures result from an environmental evaluation of policies, plans, projects, developmental activities and the social welfare of the population.

Protection discourages excessive financial expenses as well as environmental degradation that may cause severe and irreversible problems.

The activities considered or suspected to have negative impacts on the environment shall not be implemented even if such impacts have not yet been scientifically proven.

Scientific uncertainty must not be taken into consideration for the benefit of the destroyers of the environment; instead it may be used in conservation of the environment.

##### PRINCIPLE OF SUSTAINABILITY OF ENVIRONMENT AND EQUAL OPPORTUNITIES ACROSS GENERATIONS

Human beings are central to sustainable development. They are entitled to a healthy and productive life in harmony with nature.

However, the right to development must be achieved in consideration of the needs of present and future generations.

##### POLLUTER PAYS PRINCIPLE

Every person who demonstrates behaviours or activities that cause or may cause adverse effects on the environment is punished or is ordered to make restitution. He or she is also ordered to rehabilitate it where possible.

The Principle of Information Dissemination and Community Sensitisation in Conservation and Protection of the Environment

Every person has the right to be informed of the state of the environment and to take part in decision making strategies to protect the environment.

##### PRINCIPLE OF COOPERATION

Authorities, international institutions, associations and private individuals are required to protect the environment at all possible levels.

In its policy of protecting the environment, the Government of Rwanda aims to promote international cooperation.

#### 3.3.5 RESULTS CHAIN

Expected Outcome: Enhanced Environmental Management and Resilience to Climate Change in Rwanda



## OUTPUTS AND ACTIVITIES

To achieve the expected outcome, the following outputs and activities have been defined in each priority area as follows:

### PRIORITY 1: ECOSYSTEM RESTORATION/REHABILITATION AND BIODIVERSITY CONSERVATION

Restoration of ecosystems and protection of biodiversity fostered

- Create new protected areas
- Plant agroforestry and restore/rehabilitate threatened ecosystems (5 years)
- Rehabilitate threatened wetlands
- Rehabilitate identified riverbanks and watershed
- Rehabilitate Nyabarongo and its tributaries' riverbanks
- Monitor ecosystems/ecosystem functioning/biodiversity/bio indicators
- Enhance community participation in ecosystem restoration and biodiversity conservation initiatives
- Enhance gender inclusion in the restoration activities

### PRIORITY 2: CLIMATE CHANGE RESILIENCE

Interventions aimed at mitigating and addressing vulnerability to climate change effectively implemented

- Build institutional capacities in GHG emissions inventory and control
- Monitor the implementation of the Nationally Determined Contributions (NDCs)
- Conduct climate change vulnerability assessment

- Develop emission factors in agriculture, energy, transport industry and waste sectors
- Develop GHG data management tool generation of downscaled climate projections for Rwanda
- Develop sectoral adaptation plans
- Ratify and domesticate regional and international conventions
- Monitor the implementation of multilateral environmental agreements ratified and domesticated by Rwanda
- Enhance the new and innovative approaches like Nature Based Solutions
- Prepare National reports of different Multilateral Environmental Agreements
- Commemorate Multilateral Environmental Agreements World Events

### PRIORITY 3: COMPLIANCE & ENFORCEMENT

- Environmental compliance and enforcement effectively enhanced
- Conduct monitoring and inspections to enforce compliance of EIA and EA certified projects
- Conduct systematic inspections (mainly for wetlands degradation, illegal use of plastics, industrial operations, improper disposal of expired and toxic goods and substances, construction in rivers and lakes buffer zones)
- Establish guidelines on procedures and conditions to monitor air pollution in industries, including set up of automated self-monitoring systems
- Manage illegal utilisation of buffer zones

- Close control of environmental enforcement and compliance in the production sector mainly in agriculture, mining, and industry.
- Enforce environmental assessments

### PRIORITY 4: ENVIRONMENTAL EDUCATION, AWARENESS AND MAINSTREAMING

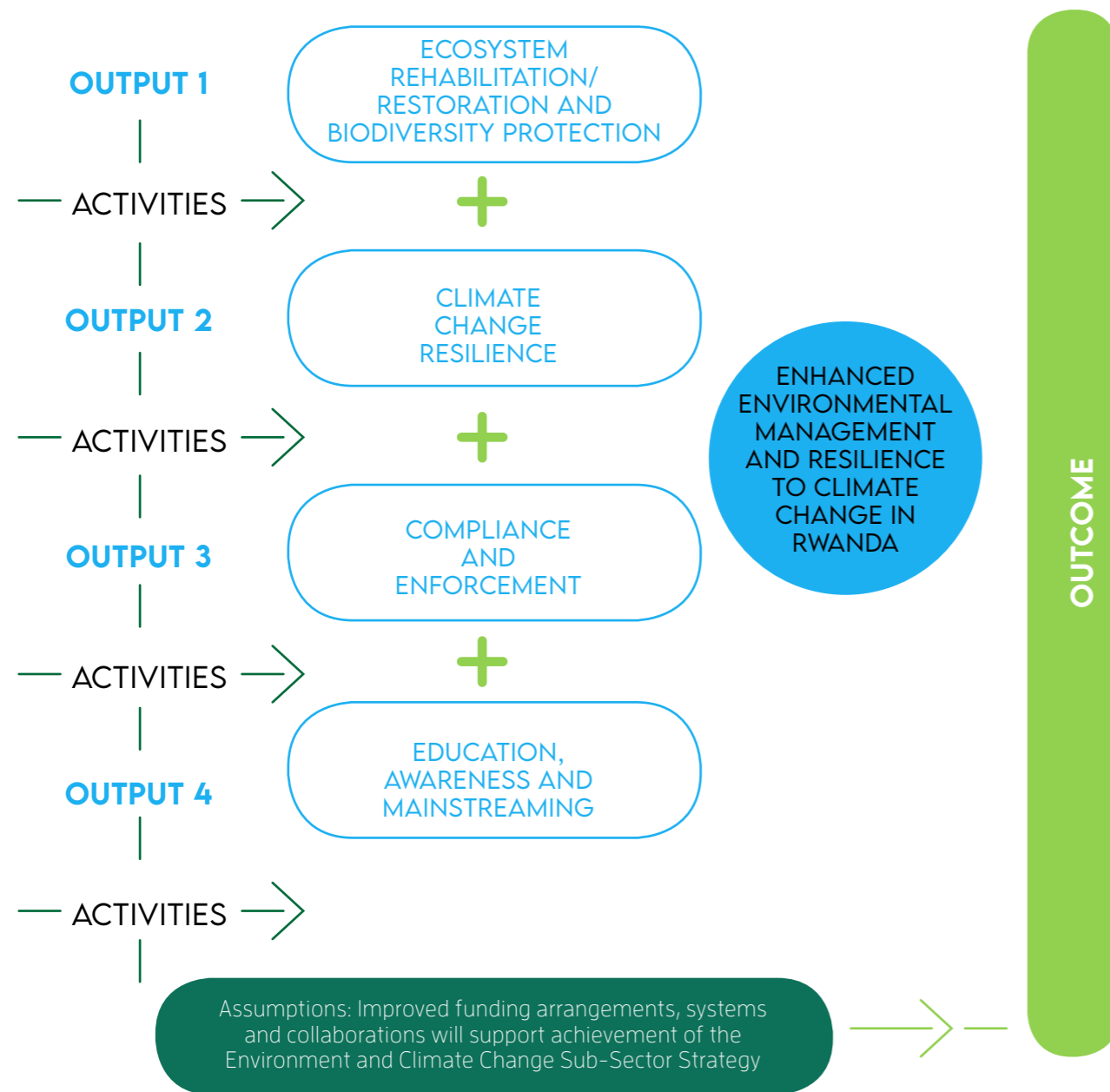
Environmental education, awareness and mainstreaming improved

- Monitor the implementation of developed SEA recommendations
- Raise awareness on SEA legal instruments
- Revise required documents for developing new SEA
- Develop environment and climate change mainstreaming tools
- Train different staff from public and private institutions to mainstream environment and climate change

- Assess ECC integration into sector's/districts planning/implementation
- Train different persons on environment and climate change
- Train Higher Learning Institutions, schools and District environment committees
- Train environmental practitioners and private sector
- Raise awareness on lake Kivu monitoring activities
- Train private sector, CBOs and NGOs using gender ECC engagement and advocacy tools
- Hold different environment days
- Establish partnerships with stakeholders engaged in ECC
- Establish biodiversity and ecosystem facility fund window in FONERWA
- Broadcast different ECC programmes on TV, Radio and social media







**FIGURE 2: RWANDA ENVIRONMENT MANAGEMENT AUTHORITY STRATEGIC PLAN THEORY OF CHANGE**

Figure 2 illustrates different pathways through which this strategic plan will be achieved along with the key assumptions that underpin the pathways necessary for the long-term impact to be achieved by many actors. Additionally, regular reviews of the theory of change will be made to ensure the understanding of the process of change and the assumptions leading to the achievement of the impact, including the roles played by different actors and resources involved.

### 3.4 IMPLEMENTATION FRAMEWORK

To achieve this strategic plan, all individuals, public institutions and private organisations as well as development partners in the Environment and Climate Change Sub-Sector must play an active role.

This includes ministries, agencies, professional and specialised organisations supporting or developing projects related

to environment and climate change, the private sector, CSOs and general community-based organisations.

Furthermore, a resource mobilisation strategy will be elaborated to raise the funds necessary to implement planned activities - mainly for climate mitigation and adaptation.

**TABLE 2: ROLE OF KEY STAKEHOLDERS**

Institutions	Roles
Rwanda Environment Management Authority	To coordinate various activities undertaken by environmental protection institutions for the protection of environment, and promote the integration of environmental issues in the developmental policies, projects and programmes with the aim of ensuring appropriate management and rational use of environmental resources on the basis of sustainable production for the improved well-being of the people of Rwanda.
	To coordinate the implementation of Government policies and decisions taken by the Board of Governors, and ensure the integration of environmental issues in national planning, and in concerned departments and institutions within the Government.
	To advise the Government on legislations and other measures relating to environmental management or to the implementation of relevant international conventions, treaties and agreements in the field of environment as and when necessary
	To make proposals to the Government in the field of environmental policies and strategies



Civil Society	Non-Governmental Organisations play a vital role in the mobilisation and awareness creation among the population on environmental issues. As such, they supplement the efforts of the Government and help to ensure that the concerns of the disadvantaged strata of society are taken into account in the national development process.
Private Sector	The private sector too is required to take a more active part in the protection of the environment by ensuring that the environmental dimension is taken into consideration in all its activities, particularly in business, industrial and crafts activities, including promoting resource efficiency and avoiding wastage.
Development Partners	Provide external perspective on the Sub sector performance and assist in the necessary technical and financial support.

### 3.4.1 MONITORING, EVALUATION AND LEARNING

Monitoring, evaluation and learning will be essential to determine whether Environment and Climate Change Sub-Sector interventions are implemented correctly and performing as expected.

The goal is for the intended targets and benefits to be achieved from a data-driven, evidence-based approach.

This will ensure that the policies, programmes and projects supporting the sub-sector priorities and their corresponding resources are implemented and used efficiently and effectively.

Related to this, constraints related to information gaps and the integrity of the data will eventually be overcome as part of the monitoring and evaluation.

Monitoring, evaluation and learning of the Rwanda Environment Management Authority Strategic Plan will be undertaken within the context of Rwanda Result

Based Performance Management Policy, whose overriding goal is to have a public service that is result based and one that is efficient and effective in delivering its services enabling the government to meet its policy commitments and targets as provided in its national development strategy timely.

The Environment and Climate Change Sub-Sector is cognizant of the role that monitoring and evaluation plays in tracking progress and performance of the subsector short, medium- and long-term strategic objectives while aligned to the integrated Environment and Natural Resources sector results based monitoring and evaluation system to monitor and evaluate the sector aspirations.

As such, monitoring, evaluation and learning of the Environment and Climate Change Sub-Sector will be done at all levels, national, district, and project level and will consist of collecting data and producing reports on the implementation

of planned activities and results.

Evaluation will be conducted at subsector, programme or project level and emphasis will be put on subsector environmental assessments and appraisals, annual reviews (performance contracts), medium term and final evaluations.

As illustrated in the next section, the M&E log frame shall specify long term and short-term results expected to be achieved, together with key performance indicators for measuring these achievements and their targets.

Besides that, appropriate skills and resources both human and financial will be a necessary and sufficient condition for efficient and effective subsector M&E implementation.

Therefore, at least 10% of the total sub-sector budget will be allocated for M&E activities as well as staff to oversee M&E interventions.

Capacity building of M&E, especially training in Environment and Climate Change M&E methods and data collection and analysis is recommended to effectively manage data for M&E purposes.

Engagement and collaboration with relevant actors at national and district levels will be essential to allow feedback that can facilitate continuous improvement.

Therefore, there is a need for a communication strategy that is M&E inclusive, thus communicating the subsector results in many ways, including through project reports, websites, social media, subsector meetings, documentations, press conferences,

among others to avoid information gaps in the Environment and Climate Change Sub-Sector.

The Environment and Climate Change Sub-Sector (under the overall coordination of REMA in collaboration with the respective E&CC thematic working groups through the thematic working group meetings, and the respective project steering committee meetings) will have the ultimate responsibility for ensuring the implementation, and M&E of the subsector interventions.

While projects under Single Project Implementation Unit will have independent responsibilities for managing their own M&E, effective coordination across parties for data aggregation, curation and project-level reporting will be critical.

### 3.5 LOGICAL FRAMEWORK

The REMA strategic monitoring and evaluation logical framework was developed through a participatory approach as guided by the E&CC outcome and priorities.

This led to formulation of the strategic plan's four outputs:

- Restoration/rehabilitation of ecosystem and protection of biodiversity fostered
- Interventions aimed at mitigating and addressing vulnerability to climate change effectively implemented
- Environmental compliance and enforcement effectively enhanced
- Environmental education, awareness and mainstreaming improved



All were formulated and aligned to the outcome statement “Enhanced environmental management and resilience to climate change”, which is also adopted from the Environment and Natural Sector (ENR) strategic plan and the REMA mandate. In addition, indicators tracking progress at each result area were developed with baseline and targets (see Annex I).

The M&E logical framework will provide overall structure for on-going M&E and ensure M&E is effectively applied and integrated during the implementation of the strategy.

Therefore, the framework summarises the most important elements of the strategic plan and has informed the formulation of its costing and implementation plan (see Annex 2).

The sequencing results chains of the outcome and outputs were defined. These outputs constitute the results of various stakeholders which will be accountable for over the next five years. For each output, various activities formulated, and specific, measurable, attainable, realistic and time-bound (SMART) indicators were well formulated for the purpose of tracking progress.

### 3.5.1 DATA COLLECTION

The baseline for all indicators was set to understand the current situation before implementation. This will also be used as baseline data to assess the change as a result of the E&CC sub sector interventions.

In addition, for each intervention there will be a need for identifying the control

and treatment areas/group and other actors with interventions in the area of E&CC sub sub-sector interventions prior to implementation.

Besides, the comparison between the treatment and control group will be essential for understanding the change brought about by E&CC sub-sector interventions for attribution purposes.

For each indicator listed in the framework, information will need to be provided on required units for data collected, suggested methodologies, frequency of data collection and population to be sampled and sampling should be conducted in a manner that doesn't not bias the results.

Projects vary in extent, scope, cost and time, therefore the number of samples to be taken for each study will be different for each E&CC project.

In some instances, however, accurate estimates will require large sample sizes, as sample sizes will depend on logistical and financial feasibility of a given project/ intervention.

An enhanced system of data collection and reporting on E&CC subsector results, identifying data gaps, filling the gaps with available data and new data collected through different surveys will lead to data readily available any time when need for use and available to serve various purposes, including informing planning, decision making and facilitate resource mobilisation across the subsector.

Moreover, doing so would provide the data needed to deliver information on the status and trends of environment and climate change.

Therefore, subsector actors in collaboration with the ENR Sector will need to strengthen the ENR web-based Results Based M&E System as an appropriate database and repository for the E&CC sub-sector.

Otherwise, a new database infrastructure would be proposed for the subsector if the current doesn't meet the intended purpose.

### 3.5.2 REPORTING

Streamlined reporting will be necessary across all lines of reporting in compliance with result-based performance management policy. The thematic working group will continue reviewing the subsector progress through the produced reports. This will be used as a platform for stakeholders at all levels to provide feedback on the implementation of this plan prior to the Sector Working Group Meetings.

While the project steering committee meetings will be essential for tracking and providing feedback on project progress and implementation.

In collaboration with relevant actors including Rwanda Development Board, REMA will need to explore the possibility of having a standardised methodology and a centralised data sharing system at national and district levels for conducting Environmental Impact Assessment and for data collection and reporting on the sub sector indicators, whose data come from both primary and secondary data sources.

So that respective companies and relevant implementing partners have a harmonised approach to EIA while meeting required

standards for data collection and reporting.

This will ultimately address possible challenges related to substandard EAI reports that are sometimes replicated in a wrong context and sometimes do not meet the set EIA guidelines.

Consequently, standardised templates would be necessary in assessing the environmental impact of a planned intervention and the relevant players will be able to understand how a given intervention impacts the environment.

With appropriate investments in data collection through field monitoring, and under the coordination of REMA, the E&CC sub sector will be able to efficiently monitor the performance of the sub sector through a synchronised centralised repository, and with a possibility of integrating it to the already in place ENR online Result Based Monitoring and Evaluation System.

Moreover, this can be possible with interoperable data through the use of the Application Programming Interface (API), thus enabling companies and other relevant stakeholders at all levels to implement harmonised approaches and standards.

Lastly, the M&E logical framework is an effective tool for reporting and has a section of the milestones/targets planned as well as the section of actual achievements of the milestones.

Therefore, different sub sector actors can use this tool in tracking the achievements of the set milestones and setting corrective measures in case of any diversions from the set planned milestones.

This will as well guide and improve the planning, decision-making, information sharing, and effectiveness to achieve the desired sub-sector outcome.

### 3.5.3 EVALUATION OF THE REMA STRATEGIC PLAN

During the course of the implementation of activities, mainly after 2 years, a mid-term evaluation will be conducted in order to assess to what extent the defined activities were implemented.

The mid-term evaluation will allow REMA and stakeholders to identify key achievements so far recorded, the problems that need to be addressed, and provide an objective view on the status of E&CC in line with achievement of objectives of the strategic plan.

In addition, the mid-term evaluation will provide an indication on different outputs lagging behind, identification of reason behind and provide corrective measures to speed up the implementation of those outputs or revising them so that the objectives of the strategic plan can be effectively achieved.

The evaluation of this strategic plan will be done twice (mid-term and final evaluation) and will comply with the evaluation criteria defined by Development Assistance Committee (DAC) revolving on the following: relevance, effectiveness, efficiency, impact and sustainability.

- The mid-term evaluation will be conducted at the mid-point of the strategic plan implementation after 2.5 years. It focuses on relevance and performance (effectiveness, efficiency and timeliness).
- The end line evaluation will be conducted at the end of the 5 years of the implementation of the Strategic Plan.

### 3.5.4 FINANCIAL AND HUMAN RESOURCES

The effective achievement of priorities under this strategic plan will require both financial and human resources. For financial resources, a number of avenues are available through mobilising resources to finance strategic actions enriched in the plan.

Some of these include:

- Mobilising local partners through the Joint Action Development Forum (JADF) to finance the implementation of some activities at district level;
- leveraging the existing and potential opportunities from the carbon markets and multilateral funding mechanisms. For human resources, REMA will be required to appropriately find the human resources needed to facilitate the smoother operationalisation of the strategic plan.

Therefore, all I28 positions, including the SPIU should be occupied by December 2022.

### 3.5.5 COSTING AND FINANCING OF THE IMPLEMENTATION

The costing and budget were done using activity-based costing. The model estimates required resources for a given set of targets in line with the priority areas

identified to enhance environment and climate change resilience.

The table below illustrates the summary of the cost to be used during the implementation of the strategic plan over the course of five years.

Outputs	Period					TOTAL
	FY 2021/22	FY 2022/23	FY 2023/2024	FY 2024/2025	FY 2025/26	
Ecosystem Rehabilitation/ Restoration and Biodiversity Conservation	2,326,473,005	3,756,926,250	12,344,821,681	12,406,783,560	6,803,039,414	37,638,043,910
Climate Change Resilience	485,415,000	434,715,750	175,727,475	202,746,443	316,262,571	1,614,867,239
Compliance and Enforcement	881,652,450	530,109,563	609,685,201	455,602,130	608,363,856	3,085,413,200
Education, Awareness and Mainstreaming	331,695,000	336,362,250	290,448,113	304,970,518	320,219,044	1,583,694,925
Total	4,025,235,455	5,058,113,813	13,420,682,476	13,370,102,659	8,047,884,886	43,922,019,289





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- Ministerial order n°004/2008 OF 15/08/2008 establishing the list of works, activities and projects that have to undertake an environmental impact assessment
- No 001/2021 of 08/02/2021 Ministerial Order establishing the list of projects that must undergo environmental audit, instructions and procedures for conducting environmental audit
- No 003/2021 of 08/02/2021 Ministerial Order determining the list of chemicals and other polluting substances that are not permitted
- Ministerial Order n°003/16.01 of 15/07/2010 preventing activities that pollute the atmosphere
- N°003/16.01 of 15/07/2010 Ministerial Order preventing activities that pollute the atmosphere
- Ministerial Order n°004/16.01 of 15/07/2010 governing the importation and exportation of wild animals
- Ministerial Order n°005/16.01 of 15/07/2010 determining the list of prohibited plains to constructions
- Ministerial Order n°006/16.01 of 15/07/2010 establishing special regulations relating to burying toxic wastes
- Ministerial Order n°005/2008 of 15/08/2008 establishing modalities of inspecting companies or activities that pollute the environment

# 5 ANNEXES

## ANNEX 1. ECC LOGICAL FRAMEWORK

### PRIORITY AREA 1: ECOSYSTEM AND BIODIVERSITY PROTECTION AND RESTORATION

OUTCOME	OUTCOME INDICATOR 1		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	Assumption
Enhanced Environmental Management and Resilience to Climate Change in selected locations of Rwanda	Area (Ha) degraded ecosystems rehabilitated/ restored	Planned	23917.4	4937.3	4500	2100	100	288	It is assumed that fruitful partnerships and developed mainstreaming tools will sufficiently support the mainstreaming interventions
		Achieved							
		Source of data							
		Frequency of data collection							
	OUTCOME INDICATOR 2		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Enhanced Environmental Management and Resilience to Climate Change in selected locations of Rwanda	Percentage of approved EIA and EA certified projects in compliance (75% or above) with EIAs, EAs Studies and Conditions of approval	Planned	TBD	80	85	85	90	95	It is assumed that fruitful partnerships and developed mainstreaming tools will sufficiently support the mainstreaming interventions
		Achieved							
		Source of data							
		Annually							
	OUTCOME INDICATOR 3		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Enhanced Environmental Management and Resilience to Climate Change in selected locations of Rwanda	% of Nationally Determined Contributions (NDC) actions achieved	Planned	0		30	40	50	60	It is assumed that fruitful partnerships and developed mainstreaming tools will sufficiently support the mainstreaming interventions
		Achieved							
		Source of data							
		Frequency of data collection							
		Annually							
	OUTCOME INDICATOR 4		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Tones of targeted hazardous waste safely managed		Planned	TBD	6	8	10	10	15	
		Achieved							
		Source							
		Frequency							
		Annually							



PRIORITY AREA 1: ECOSYSTEM AND BIODIVERSITY PROTECTION AND RESTORATION

OUTPUT I	OUTPUT INDICATOR I		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	Assumption
Rehabilitation/restoration of ecosystems and protection of biodiversity fostered	Area (Ha) of ecosystem rehabilitated/restored	Planned	Agroecosystem: 19,997 Ha Woodlots: 2,068 Natural forest: 80 Ha Lakeshores: 854.9 Ha riverbank: 764.5 Ha wetland: 153 Ha	FLR-MAYAGA: 4,532Ha (Agroecosystem) 362 Ha (woodlot) 34 Ha (riverbank) NAP: 9.3 Ha	Agroecosystem: 4,300 Ha Woodlot: 200 Ha	Agroecosystem: 2,000 Ha Wetland: 100 Ha	wetland: 100 Ha	Wetland: 288 Ha	The government and its citizens will remain committed to rehabilitation of the ecosystem and protection of biodiversity.
		Achieved							
		Source of data							
		Frequency of data collection							
				Annually					
	OUTPUT INDICATOR 2		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	Milestone 4 (end 2025)	2025/2026 (End June 2026)	
Rehabilitation/restoration of ecosystems and protection of biodiversity fostered	Number of protected area (#) created	Planned	4 National Parks; 1 Ramsar site, 2 biosphere reserves	N/A	1. Assessment reports for 6 remnant forests 2. Biodiversity inventories conducted for wetlands	1. Restoration and Management Plans developed 2. TEV reports for wetlands	1. 6 remnants forests nominated as new protected areas 1. One Ramsar site established	N/A	The government and its citizens will remain committed to rehabilitation of the ecosystem and protection of biodiversity.
		Achieved							
		Source of data							
		Frequency of data collection							
				5 Years					

INPUTS (RWF)	RWF	Govt (RWF)	Other (RWF)				Total (RWF)	SHARE (%)
INPUTS (HR)	REMA Staff Input							

PRIORITY 2: CLIMATE CHANGE RESILIENCE

OUTPUT 2	OUTPUT INDICATOR 2.1		Baseline	2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	Assumption
Interventions aimed at mitigating and addressing vulnerability to climate change effectively Implemented	% Of Nationally Determined Contributions (NDC) actions effectively monitored	Planned	0	100	100	100	100	100	It is assumed that funds will be mobilised and committed by various development partners to mitigate and address vulnerability to climate change and effective monitoring systems will be put in place to track the achievement of NDC actions
		Achieved							
		Source of data							
		Frequency of data collection							
		Annually							
Interventions aimed at mitigating and addressing vulnerability to climate change effectively Implemented	Number of tools to support climate change, mitigation and adaptation developed	Planned	10 (4 National GHG inventory reports, 4 TNA reports 2 Vulnerability Assessment reports)	1 (Downscaled climate projections for Rwanda)	8 (3 Sectoral NAPs, 5 Specific Emission Factors)	2 (National GHG inventory report and Climate change Vulnerability assessment report)	N/A	1 National GHG inventory report produced	
		Achieved							
		Source of data							
		Frequency of data collection							
		5 Years							



	OUTPUT INDICATOR 2.2		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Interventions aimed at mitigating and addressing vulnerability to climate change effectively Implemented	Number of multilateral environmental agreements monitored	Planned	18		18	18	18	18	18	
		Achieved								
			Source of data							
			Frequency of data collection							
			Annually							
	OUTPUT INDICATOR 2.3		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Interventions aimed at mitigating and addressing vulnerability to climate change effectively Implemented	Number of projects developed and submitted to climate funds ( GCF and GEF)	Planned	30		0	1	0	1	0	It is assumed that funds will be mobilised and committed by various development partners to mitigate and address vulnerability to climate change and effective monitoring systems will be put in place to track the achievement of NDC actions
		Achieved								
			Source of data							
			Frequency of data collection							
			Annually							
INPUTS (RWF)	RWF		Govt (RWF)		Other (RWF)			Total (RWF)	DFID SHARE (%)	
INPUTS (HR)	REMA Staff Input									

PRIORITY AREA 3: COMPLIANCE & ENFORCEMENT

OUTPUT 3	OUTPUT INDICATOR 3.1		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	Assumption
Environmental compliance and enforcement effectively enhanced	Number of technical regulatory tools developed and harmonised	Planned	6		12	18	27	20	20	Respective stakeholders will comply and support ECC sub-sector compliance and enforcement initiatives
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								
	OUTPUT INDICATOR 3.2		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Environmental compliance and enforcement effectively enhanced	Number of EIA/EA certified projects monitored	Planned	TBD		100	140	180	230	280	
		Achieved								
		Source of data								
		Frequency of data collection								
		Quarterly								
	OUTPUT INDICATOR 3.3		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Environmental compliance and enforcement effectively enhanced	Number of inspections deterring environmental pollution conducted	Planned	28		209	229	259	259	313	
		Achieved								
		Source of data								
		Frequency of data collection								
		Weekly								



	Output Indicator 3.4		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Environmental compliance and enforcement effectively enhanced	Environmental Assessments Conducted	Planned	1. Annual Lake Kivu Monitoring Reports(5), 2. State of Environment Report (6) 3. Air quality status report (0) I thought we had Ireport from the project 4. Systematic EA of industries with high pollution potential report (1)		1. Annual Lake Kivu Monitoring Reports(1), 2. State of Environment Report, 3. Air quality status report(1), 4. Environmental Assessment of Municipal Dumpsites / landfills in Rwanda	1. Annual Lake Kivu Monitoring Reports(1), 2. State of Environment Report, 3. Air quality status report(1) 4. Comprehensive Assessment of Mining Impacts on the Environment in Rwanda	1. Annual Lake Kivu Monitoring Reports(1), 2. State of Environment Report, 3. Air quality status report(1) 4. Environmental Assessment of Garages and car washes	1. Annual Lake Kivu Monitoring Reports(1), 2. State of Environment Report, 3. Air quality status report(1) 4. Environmental Assessment of Industrial zones	1. Annual Lake Kivu Monitoring Reports(1), 2. State of Environment Report, 3. Air quality status report(1) 4. Environmental Assessment of Agroprocessing Factories	
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								
INPUTS (RWF)	GoR (RWF)		Govt (RWF)		Other (RWF)			Total (RWF)	SHARE (%)	
INPUTS (HR)	REMA Staff Inputs									

PRIORITY AREA 4: ENVIRONMENTAL EDUCATION, AWARENESS AND MAINSTREAMING

OUTPUT 4	Output Indicator 4.1		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	Assumption
Environmental education, awareness and mainstreaming improved	Number of sectors' policies, plans and programmes complying to SEA legal requirements	Planned	4 SEA developed		1	1	2	1	1	That sufficient human capacity exists at all levels to educate, mainstream and create ECC awareness campaigns.
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								
	Output Indicator 4.2		Baseline		2021/2022 (End June 2022)	2022/2023 (End June 2023)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Environmental education, awareness and mainstreaming improved	Number of a) (development) sectors b) Districts which have satisfactorily integrated environment climate change (adaptation/resilience building) into their policies, strategies, plans and reports	Planned	2 sectors assessed		2	1	1	1	1	
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								
		Planned	10 districts assessed		2	3	5	5	5	
		Achieved								
		Source of data								
		Frequency of data collection								
What is the indicator?	Annually									
	Output Indicator 4.3		Baseline		2021/2022 (End June 2022)	2021/2022 (End June 2022)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
Environmental education, awareness and mainstreaming improved	Number of targeted people trained and sensitised in ECC	Planned	21490 people trained		560	150	100	60	60	
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								



	Output Indicator 4.4		Baseline		2021/2022 (End June 2022)	2021/2022 (End June 2022)	2023/2024 (End June 2024)	2024/2025 (End June 2025)	2025/2026 (End June 2026)	
	Number of functional partnerships established	Planned	6 functional partnership established		1	2	2	2	2	
		Achieved								
		Source of data								
		Frequency of data collection								
		Annually								
	Output Indicator 4.5		Baseline							
	Number of mainstreaming tools developed	Planned	5 ECC checklists and strategies developed		2	2	1	1	1	
		Achieved								
		Source								
		Annually								
INPUTS (RWF)	GoR (RWF)		Govt (RWF)		Other (RWF)			Total (RWF)	SHARE (%)	
INPUTS (HR)	REMA Staff Inputs									



## ANNEX 2. INDICATIVE BUDGET: RWANDA ENVIRONMENT MANAGEMENT AUTHORITY STRATEGIC PLAN - COSTING FOR 5 YEARS

Outputs	Activities	Period					
		FY 2021/22		FY 2022/23	FY 2023/2024	FY 2024/2025	FY 2025/26
Total Budget		5,839,017,450		5,237,663,813	5,209,160,851	5,158,581,031	5,801,808,790
Priority area I: Ecosystem and Biodiversity Protection and Restoration		4,140,255,000		3,936,476,250	4,133,300,063	4,195,261,941	4,556,963,319
Output I.I: Rehabilitation of ecosystem and protection of biodiversity fostered		4,140,255,000		3,936,476,250	4,133,300,063	4,195,261,941	4,556,963,319
	Monitoring and Evaluating Greened schools	377,580,000					
	Planting of agroforestry and woodlots (5 years)	262,500,000		275,625,000	289,406,250	303,876,563	319,070,391
	Rehabilitating area in Ha of selected wetlands in Kigali City	2,638,650,000		2,756,250,000	2,894,062,500	2,894,062,500	3,190,703,906
	Rehabilitating Area in Ha of identified riverbanks and watershed	374,850,000		393,592,500	413,272,125	433,935,732	455,632,518
	Rehabilitating Area in ha of Nyabarongo and its tributaries' riverbanks	486,675,000		511,008,750	536,559,188	563,387,147	591,556,505
Priority area 2: Climate Change Resilience				485,415,000		175,727,475	202,746,443
Output 2.I. Interventions aimed at mitigating and addressing vulnerability to climate change effectively implemented		485,415,000		434,715,750	175,727,475	202,746,443	316,262,571
	Building institutional capacities in GHG emissions inventory and control	124,950,000		131,197,500	50,935,500	53,482,276	56,156,389
	Monitor the implementation of the Nationally Determined Contributions (NDCs)	12,600,000		13,230,000	4,630,500	4,862,025	
	Monitor Monitoring Carbon Market Projects	26,250,000		27,562,500	28,940,625	30,387,657	31,907,039
	Assessing Carbon market project seeking letter of approval	38,850,000		24,255,000	25,467,750	44,973,732	28,078,195
	Conducting climate change vulnerability assessment	107,205,000		2,315,250	2,431,012	2,552,563	130,308,347
	Development of Emission factors in Agriculture, Energy, Transport industry and waste sectors	95,760,000		23,373,000	24,541,650	25,768,733	27,057,169
	Development of GHG data management tool			52,920,000			
	Generation of downscaled climate projections for Rwanda			41,343,750			
	Development of sectoral adaptation plans	44,625,000					
	Development of NAP funding strategy			46,856,250			
	Ratifying and domesticating regional and international conventions			14,332,500			



Outputs	Activities	Period		FY 2022/23	FY 2023/2024	FY 2024/2025	FY 2025/26
		FY 2021/22					
	Monitoring of the implementation Multilateral Environmental Agreements ratified and domesticated by Rwanda			20,396,250			
	Prepare National reports of different Multilateral Environmental Agreements	7,875,000		8,268,750	8,682,188	9,116,297	9,572,112
	Commemoration of Multilateral Environmental Agreements World Events	27,300,000		28,665,000	30,098,251	31,603,163	33,183,320
<b>Priority area 3: Compliance &amp; Enforcement</b>		<b>881,652,450</b>		<b>530,109,563</b>	<b>609,685,201</b>	<b>455,602,130</b>	<b>608,363,856</b>
Output 3.1. Environmental compliance and enforcement effectively enhanced		881,652,450		530,109,563	609,685,201	455,602,130	608,363,856
	Conducting monitoring and inspections to enforce compliance of EIA and EA Certified Projects	38,220,000		40,131,000	42,137,550	44,244,427	46,456,648
	Conducting systematic inspections (mainly for wetlands degradation, illegal use of plastics, industrial operations, improper disposal of expired and toxic goods & substances, construction in rivers and lakes buffers zones.	28,770,000		30,208,500	31,718,925	33,304,871	34,970,115
	Establishment of guidelines on procedures and conditions to monitor air Pollution in industries, Including set up of automated Self-Monitoring systems	76,020,000		8,158,500	8,566,425	8,994,746	9,444,484
	Mainstreaming of environment laws and regulations protecting buffer zones of lake, rivers and wetland	39,900,000		41,895,000	43,989,750	46,189,238	48,498,700
	Training persons on SEA and Environmental Compliance	77,700,000		81,585,000	85,664,250	29,172,151	30,630,757
	Managing to counter illegal utilisation of buffer zones	27,300,000		28,665,000	30,098,250	31,603,163	33,183,321
	Closer control of environmental enforcement and compliance in the productive sector mainly in agriculture, mining, industry etc.	12,285,000		10,694,250	13,544,214	14,221,424	14,932,495
	Enforcing Environmental Impact Assessments	26,250,000		41,895,000	28,940,625	30,387,656	31,907,039
	Conducting greenhouse gas (GHG) emissions inventory	15,960,000		16,758,000	17,595,901	18,475,696	19,399,480
	Conducting Assessment of Climate Vulnerability Index	106,936,200			117,897,161		129,981,620
	Enforcing Environmental Assessments	20,212,500		21,223,125	22,284,282	23,398,495	24,568,420
	Assessment and implementation of the management prescriptions (MPs)	14,962,500		15,710,625	16,496,157	17,320,964	18,187,012
	Conducting lake wide monitoring	15,750,000		16,537,500	17,364,375	18,232,594	19,144,223
	Educate and train field team and supporting staff Conducting KivuWatt environmental audit	52,736,250		55,373,063	6,048,590	6,351,020	6,668,571

Outputs	Activities	Period					
		FY 2021/22		FY 2022/23	FY 2023/2024	FY 2024/2025	FY 2025/26
	Develop inspection checklist for gas extraction operations	53,025,000					
	Equip Laboratory and enable lean and efficient use	160,125,000					
	Contribute to operationalization of early warning system	68,250,000		71,662,500	75,245,625	79,007,906	82,958,302
	Contribute to scientific and general knowledge of Lake Kivu	47,250,000		49,612,500	52,093,125	54,697,781	57,432,670
<b>Priority area 4: Environmental Education, Awareness and Mainstreaming</b>		<b>331,695,000</b>		<b>336,362,250</b>	<b>290,448,113</b>	<b>304,970,518</b>	<b>320,219,044</b>
Output 4.I: Environmental education, awareness and mainstreaming improved		331,695,000		336,362,250	290,448,113	304,970,518	320,219,044
	Monitoring of implementation of developed SEA recommendations	8,715,000		9,150,750	9,608,288	10,088,702	10,593,137
	Raising awareness on SEA legal instruments	17,850,000		17,850,000	19,679,625	20,663,606	21,696,787
	Revision of required documents for developing new SEA	17,010,000		17,860,500	18,753,526	19,691,201	20,675,762
	Training of different staff from ministries and public institutions, Districts to mainstream the environment and climate change	14,700,000		15,435,000	16,206,750	17,017,088	17,867,941
	Assessing ECC integration into Sector/District Planning/ Implementation	26,460,000		27,783,000	29,172,151	30,630,758	32,162,296
	Persons trained on environment and climate change	11,445,000		12,017,250	12,618,113	13,249,019	13,911,469
	Training Higher Learning Institutions, schools and District environment committees	7,770,000		8,158,500	8,566,425	8,994,747	9,444,484
	Training of environmental practitioners and private sector	10,395,000		10,914,750	11,460,488	12,033,512	12,635,187
	Raising awareness on lake kivu monitoring activities	26,250,000		27,562,500	28,940,625	30,387,657	31,907,039
	Training of private sector, CBOs and NGOs using gender ECC engagement and advocacy tools	8,400,000		8,820,000	9,261,000	9,724,050	10,210,253
	Holding different environment days	45,675,000		47,958,750	50,356,688	52,874,523	55,518,248
	Establishment of partnerships with stakeholders engaged in ECC	16,275,000		17,088,750	17,943,189	18,840,347	19,782,364
	Development of Environment and Climate Change mainstreaming checklists			60,637,500			
	Establishment of biodiversity and ecosystem facility in FONERWA	68,250,000					
	Broadcasting of different ECC programmes on TV, radio and social media	52,500,000		55,125,000	57,881,250	60,775,313	63,814,078







