



REPUBLIC OF RWANDA

Rwanda Biodiversity Policy

SEPTEMBER 2011



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Acronyms and Abbreviations

BIMS:	Biodiversity Information Management System
CBD:	Convention on Biological Diversity
CBOs:	Community based organizations
CITES:	Convention on International Trade in Endangered Species
CMS:	Convention on Migratory Species
COMESA:	Common Market for Eastern and Southern Africa
DNA:	Deoxyribonucleic Acid
EAC:	East African Community
EDPRS:	Economic Development and Poverty Reduction Strategy
ELA:	Environment Impact Assessment
GEF:	Global Environment Facility
GMO:	Genetically Modified Organism
GoR:	Government of Rwanda
IEM:	Integrated Environmental Management
IPPC:	International Plant Protection Convention
IRST:	Institute of Scientific and Technological Research
KCCEM:	Kitabi College of Conservation and Environmental Management
MEAs:	Multilateral Environmental Agreements
MINECOFIN:	Ministry of Finance and Economic Planning
MINICOM:	Ministry of Trade and Industry
MINIJUST:	Ministry of Justice
MINIRENA:	Ministry of Natural Resources
MOE:	Ministry in charge of Education
MOH:	Ministry in charge of Health
MTEF:	Medium Term Expenditure Framework
NAPA:	National Plan of Action
NBI:	Nile Basin Initiative
NEPAD:	New Partnership for Africa's Development
NGO:	Non-Governmental Organization
OIE:	World Organization for Animal Health
PA:	Protected Area
PAB:	Protected Areas Biodiversity Project

PM:	Prime Minister
PNV:	Parc National des Volcans (Volcanoes National Park)
PPP:	Public Private Partnership
RAB:	Rwanda Agriculture Board
RDB –T&C:	Rwanda Development Board, Tourism and Conservation department
REMA:	Rwanda Environment Management Authority
RNRA:	Rwanda Natural Resources Authority
RWF:	Rwandese Franc
SEA:	Strategic Environmental Assessment
SOE:	State of Environment
SPS:	Sanitary and Phytosanitary Standards
UNCCD:	United Nations Convention to Combat Desertification
UNFCCC:	United Nations Framework Convention on Climate Change
WTO:	World Trade Organization

PREFACE



Located in the Albertine rift, Rwanda is endowed with some of the World's richest natural resources and ecosystems. The Country has a multifaceted environment, providing habitats to thousands of unique plants and animals, and a valuable shelter to an important number of endangered species such as the mountain gorillas, which are among the most charismatic flagship species in Africa, and an effective target for much of the current conservation investment in the area.

Promoting policies that encourage sustainable environmental management practices is hence critical to ensuring the biodiversity conservation in Rwanda.

The Government of Rwanda's commitment towards environment management has been demonstrated through various initiatives. Key among these are: Rwanda State of the Environment Report, Rwanda Atlas of our Changing Environment, Environment and Climate Change Sub Sector Strategic Plan, Rwanda Marshlands Inventory, Rwanda Forest Landscape Restoration Initiative, Rwanda Climate Change and Low Carbon Development Strategy; and outstandingly recognized achievements in degraded ecosystem rehabilitation, to name but a few. Furthermore, several sectoral policies relating to the environment have also been developed in the sectors of agriculture and food security, livestock, water and sanitation, energy, wildlife, forest, as well as industry.

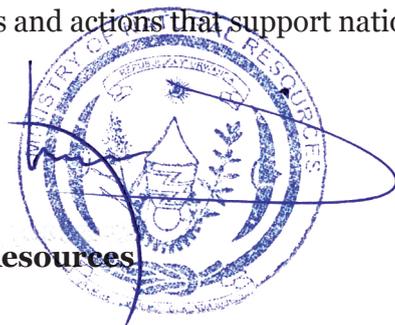
Rwanda is a signatory and has ratified several international treaties and conventions promoting biodiversity conservation. Amongst these is the Convention on Biological Diversity (CBD), with three main goals including the conservation of biodiversity, sustainable use of the components of biodiversity, and sharing the benefits arising from the commercial and other utilization of genetic resources in a fair and equitable way.

I am very pleased to introduce to you this Rwanda Biodiversity Policy which provides a comprehensive and long-term directive framework that underpins national strategies to sustainably tap the economic potential of our biodiversity resources.

On behalf of the Government of Rwanda and on my own behalf, I would like to sincerely express gratitude to all national and international partners in the Environment Sector, for their contribution in the elaboration of this Biodiversity Policy. We are also very grateful to REMA and RDB teams and all other experts whose dedication made this publication possible.

It is my hope that this policy will effectively guide the management of biodiversity conservation and all relevant decisions and actions that support national sustainable development.

Stanislas KAMANZI
Minister of Natural Resources



ACKNOWLEDGEMENT

I would like to take this opportunity and thank all of you who have been involved in the development of this biodiversity policy.

Your involvement as stakeholders from different sectors (Government, Development Partners, Civil Society, Local and International Non Governmental Organizations) has been instrumental to achieve this important step in biodiversity conservation for our country.

My particular appreciation goes to the Global Environment Facility (GEF) and United Nations Development Programme (UNDP) who provided funds through the project “Strengthening Biodiversity Conservation Capacity in the Forest Protected Area System of Rwanda”, to support this work. Appreciation also goes to our colleagues in Rwanda Development Board /Tourism and Conservation Department and of course the whole team in Rwanda Environment Management Authority (REMA) who collaboratively provided the needed leadership in this endeavor.

REMA is confident that this biodiversity policy is a timely and useful contribution which will add significant value in support of sustainable management of our environment as it lays a firm foundation for the protection and conservation of biodiversity in Rwanda.

We look forward to your continued involvement towards the implementation of this policy.



Dr. Rose MUKANKOMEJE
Director General of REMA



TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	I
PREFACE	III
ACKNOWLEDGEMENT	IV
1. INTRODUCTION	1
2. THE ISSUE	2
2.1. Asserting Rwanda’s Sovereignty over its Biodiversity	2
2.2. Addressing Threats and Supporting Sustainable Use of Biodiversity.....	2
2.3. The lack of a clear national level conservation-planning framework.....	2
2.4. Key stakeholders are not systematically involved in conservation and do not reap the full benefits.....	3
2.5. Skills in conservation management are often insufficient.....	3
2.6. Insufficient institutional capacity to efficiently and effectively manage wildlife and conservation	3
2.7. Rehabilitation of Degraded Ecosystems.....	3
2.8. Control of Alien Invasive Species.....	3
2.9. Cross Sectoral Linkages	4
2.10. Integrate biodiversity considerations into land-use planning procedures and environmental assessments	4
3. CONTEXT	4
3.1. Species’ Richness in Rwanda	4
3.2. The benefits of conserving biodiversity.....	4
3.3. Vision 2020 and Economic Development and Poverty Reduction Strategy	5
3.4. Rwanda’s International and Regional Obligations.....	5
4. POLICY GOAL, OBJECTIVES AND PRINCIPLES	6
4.1. Policy Goal.....	6
4.2. Policy Objectives.....	7
4.3. Policy Principles.....	7

5. ANALYSIS	8
5.1. Major Drivers and Threats to Biodiversity	8
5.2. Addressing Rwanda’s Socio-Economic Challenges	9
5.3. Addressing Policy Related Challenges	9
5.4. Biodiversity Conservation and National Development	10
5.5. Conservation Achievements	10
6. PREFERRED OPTIONS	10
6.1. Conserve the Diversity of Landscapes, Ecosystems, Habitats, Communities, Populations, Species, and Genes in Rwanda	10
6.1.1. Identification.....	11
6.1.2. National Biodiversity Planning	11
6.1.4. Species Conservation.....	12
6.1.5. Protected Areas	13
6.1.6. Rehabilitation of Degraded Ecosystems.....	14
6.2. Environmentally Sound and Sustainable Development outside Protected Areas.....	15
6.2.1. Conservation in Areas immediately Adjacent to PAs	15
6.2.2. Conservation of Biodiversity beyond Protected Areas	16
6.2.3. Conservation of Agrobiodiversity.....	17
6.3. Controlling, Eradicating and Preventing Threats to Biodiversity	17
6.3.1. Biosecurity	17
6.3.2. Alien and Invasive Species	18
6.3.3. Genetically Modified Organisms.....	19
6.4. Integrating biodiversity considerations in other national and regional initiatives.....	19
6.4.1. Sectoral and Cross-Sectoral Approaches.....	20
6.4.2. Mainstreaming Gender.....	21
6.4.3. Mainstreaming the Youth	21
6.4.4. Regional and International Obligations.....	22

6.4.5. Partnerships and Stakeholder Involvement	23
6.5. Using Biological Resources Sustainably and Avoiding or Minimising Adverse Impacts on Biological Diversity	23
6.5.1. Common Approaches for conservation and sustainable use of biological resources in all ecosystems	23
6.5.2. Terrestrial Ecosystems	24
6.5.3. Aquatic and Wetland Ecosystems	25
6.5.4. Land-Use Planning and Environmental Assessment	25
6.6. Ensure that Benefits Derived from the use and Development of Rwanda’s Genetic Resources Serve Local Community and National Interests	26
6.6.1. Access to Genetic Resources	26
6.6.2. Equitable Sharing of Benefits	27
6.7. Expand the Human Capacity to Conserve Biodiversity, to Manage its use, and to Address Factors Threatening it	28
6.7.1. Public Education and Awareness.....	28
6.7.2. Improving Understanding about Biodiversity through Research	29
6.7.3 Biodiversity Surveys and Inventories	30
6.7.4. Monitoring and evaluation.....	30
6.7.5. Data, Information and Knowledge Management.....	31
6.7.6. Developing Capacity to Manage Biodiversity	32
6.8. Create Conditions and Incentives that Support the Conservation and Sustainable use of Biodiversity	33
6.8.1. Creating and Sharing Benefits from Biodiversity	33
6.8.2. Incentives	34
7. STAKEHOLDERS' VIEWS	35
8. IMPLEMENTATION PLAN	36
8.1. Objective:	36
8.2. Strategies and activities to achieve the Objective	36

8.3. Implementation Strategy	37
8.4. Monitoring, Evaluation and Learning from the Policy Implementation Plan and Strategy	37
9. FINANCIAL IMPLICATIONS	38
9.1. Objective:	38
9.2. Strategies and activities to achieve the objective	38
9.3. Immediate Financial Implications	38
10. LEGAL IMPLICATIONS	38
11. CONTRIBUTION OF THE PRIVATE SECTOR	39
12. HANDLING PLAN	40
ANNEX 1: IMPLEMENTATION PLAN AND BUDGET	41

1. INTRODUCTION

Biological diversity or simply, biodiversity has assumed enormous importance globally, nationally, and locally as its role in sustaining planetary processes, ecological cycles and natural resource production becomes ever more evident. Rwanda is well-known for its rich biodiversity. It encompasses, despite its small size of 26,338 square kilometres, an array of species from the Albertine Rift in the West to the savannah lake and swamp systems of the Akagera region in the East.

The importance and wider values Rwanda ascribes to its biological diversity is evidenced by the many international conventions which it has signed and ratified. Chief amongst these is the Convention on Biological Diversity (CBD), whose main goals are to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. The CBD places several obligations to Rwanda, following her ratification of the convention, which can be summarized as follows:

- Adopting specific strategies, plans and programmes on biodiversity;
- Conservation and sustainable use and incorporating relevant concerns into any plans, programmes and policies (art. 6);
- Establishing a system of protected areas, rehabilitating and restoring degraded ecosystems and promoting the recovery of threatened species (art. 8);
- Identifying and controlling all potential sources of adverse impacts on biodiversity, and carrying out environmental impact assessments of projects likely to have "significant adverse effects" on biological diversity (art. 14);
- Protecting and encouraging customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements, supporting local populations to develop and implement remedial action in degraded areas, and encouraging cooperation between governmental authorities and the private sector in developing methods for sustainable use (art. 10);
- Building incentives into conservation and sustainable use objectives (art. 11).

The formulation of a coherent biodiversity policy and strategy for Rwanda is long overdue, and takes place at a time when many other policies of relevance to biodiversity are being developed. In particular, this policy comprises part of the broader context of strengthening the management of the environment as one of the key pillars of sustainable development. The Biodiversity Policy provides the framework for developing strategies, plans and programmes for implementing the environmental targets set out in Rwanda's Vision 2020 and the Economic Development and Poverty Reduction Strategy – EDPRS. Other relevant policies that have recently been developed or are in the process of being developed include those on land, energy, tourism, science and technology, forestry and wildlife. Through this Policy, Government

commits itself to develop and implement strategies, plans, and programmes that will promote biodiversity conservation and the sustainable development of Rwanda.

It is the desire of the Government to advance good biodiversity policy in order to enable conservation strategies, plans and programmes that are supported by the best science, partnership and participatory processes. This will enable leaders and practitioners in governmental, non-governmental, industrial, and academic organizations to find productive solutions and consensus to controversial and complex conservation issues.

2. THE ISSUE

Rwanda's biodiversity resources are a valuable natural endowment that offers a wide range of benefits and opportunities for local and national economic development, improved livelihoods and provision of environmental goods and services such as biodiversity and watershed protection. The challenge before Rwanda is to sustainably manage its biodiversity for present and future generations, by better balancing human needs with those of the environment. Meeting this challenge will require fundamentally new strategies and approaches for valuing and managing biodiversity goods and services.

Currently, Rwanda has no policy or legal framework that specifically addresses the conservation of biodiversity and to regulate access and use. This Policy is therefore being formulated, based on a growing body of scientific knowledge and emerging consensus and partnerships, to promote and support the maintenance and restoration of the integrity, functioning, and health of natural systems. The Policy will provide resource managers with objective perspectives of the relationships between humans, and ecosystems and their interactions on which decisions on conservation and sustaining of environmental goods and services shall be based.

2.1. Asserting Rwanda's Sovereignty over its Biodiversity

The CBD establishes national sovereignty over the ownership biodiversity and natural resources. In accordance with the Convention and through this Policy GoR asserts its sovereignty, authority and the rights to regulate the conservation, access and use of Rwanda's Biodiversity.

2.2. Addressing Threats and Supporting Sustainable Use of Biodiversity

Human activity has been changing the natural ecosystems through agricultural and industrial development, and human settlement, over-exploitation of certain species and the introduction of alien invasive species. This has resulted in habitat loss and degradation, and the pollution or toxification of the soil, water and atmosphere. In addition, some species have been lost and ecological processes impaired. This policy provides the framework for effective strategies for action to save biodiversity and promote sustainable use.

2.3. The lack of a clear national level conservation-planning framework

While Protected Areas (PAs) will continue to serve as core and centrepieces of the conservation efforts, they will be complemented by other categories of conservation areas and conservation-based production systems. This policy provides for comprehensive conservation planning through the formulation of a National Conservation Plan.

The current network of National Parks covers just over 8 per cent of the national territory, while the Vision 2020 calls for its expansion to over 10 per cent. This policy provides for the expansion of the PA network through the establishment and gazetting of new National Parks and other categories of protected areas.

2.4. Key stakeholders are not systematically involved in conservation and do not reap the full benefits

Participation and partnerships are becoming increasingly important for successful conservation and sustainable use of biodiversity. This Policy provides for the creation of a governance system that integrates various stakeholders and clearly defines their responsibilities in the conservation and management of biodiversity.

2.5. Skills in conservation management are often insufficient

This policy aims to provide for the development of a whole range of scientific, technical and managerial skills necessary for planning and management of biodiversity, as well as multi-stakeholder participatory processes and skills for joint planning and community participation. Actions should also include strengthening training opportunities, particularly through the Kitabi College of Conservation and Environmental Management (KCCEM), which shall be established, managed and operated as a Strategic National Institution for the provision and upgrading of conservation knowledge and skills.

2.6. Insufficient institutional capacity to efficiently and effectively manage wildlife and conservation

Conservation is a knowledge-intensive enterprise and increasing and up to date data and other information will be required. This policy supports the intensification of biological and other research, the dissemination and deployment of the findings and the establishment of a Regional Centre of Excellence in Biodiversity in Rwanda. This Policy also calls for the development of tools for monitoring and reporting on trends in biodiversity conservation and sustainable use.

2.7. Rehabilitation of Degraded Ecosystems

Rehabilitation of degraded ecosystems in Rwanda is an urgent and major task, requiring the commitment of significant resources from both national budgets and from other sources. For the purposes of this Policy, GoR will require that rehabilitation actions be prioritized.

2.8. Control of Alien Invasive Species

The unregulated entry, introduction and spread of alien organisms can have adverse impacts on biodiversity and ecosystems. Through this Policy, Government establishes a legal framework for controlling and regulating the introduction and spread of such organisms in Rwanda. It also requires the establishment of a framework for regulating the transfer, handling, use and release of genetically modified organisms (GMOs) in order to minimize the potential risks to biodiversity and human health.

2.9. Cross Sectoral Linkages

Biodiversity questions are largely cross-sectoral, and the only way in which conservation and sustainable use can be tackled effectively is by a collective endeavour which pulls together the seemingly diverse institutions characterizing the various sectors. This Policy establishes a framework for cross-sectoral coordination and for the development of a variety of strategies that are compatible with conservation.

2.10. Integrate biodiversity considerations into land-use planning procedures and environmental assessments

Biodiversity is often adversely affected by planning and development decisions and actions. This may be through a failure to incorporate biodiversity considerations into regional and district plans, inadequate information and misguided decisions and inappropriate policies. This Policy institutionalizes the requirement for incorporation of biodiversity considerations in land-use planning and environmental assessment procedures. Government will also be required to draft and publish regulations concerning the control of activities which may have a detrimental effect on the environment, as well as strengthening the effectiveness of existing planning controls.

Overall this Biodiversity Policy charts out a new road-map on which the Rwanda's biodiversity will be developed, managed and used. It establishes a coherent and systematic framework for long-term decisions which will be supported by appropriate legislation, which were previously lacking.

3. CONTEXT

3.1. Species' Richness in Rwanda

Despite its small size, Rwanda is covered by diversified ecosystems: natural ecosystems consisting of mountain rainforests, gallery forests, savannahs, wetlands and aquatic lands and ecosystems. These ecosystems accommodate a great diversity of flora and fauna wealth. The flora comprises hundreds of higher and lower plant species. Some of them have been domesticated for years and are today the basis of human diet, commercial and medical uses. Rwanda's three national parks, Parc National des Volcans (PNV), Nyungwe and Akagera, covering just over 8% of the national territory, are at the very frontline in protecting this natural wealth, the ecosystems and the goods and ecological services they provide.

3.2. The benefits of conserving biodiversity

Many direct and indirect benefits accrue to the people of Rwanda from the biodiversity wealth and diverse ecosystems and the benefits of conserving it are numerous. A large proportion of Rwanda's population are directly dependent upon biological resources for subsistence purposes, including the gathering, harvesting or hunting of animals and plants for food, medicine, shelter, fuel, building materials, and trade. Several industries are also directly dependent upon the use of local species for economic gain.

One of most fundamental benefits of conserving biodiversity lies in the ecological services which it provides. These are essential to fulfilling human needs as well as those of all life on Earth. Biodiversity enriches our cultural diversity and spiritual life. Through the use and appreciation of Rwanda's biological diversity, a rich cultural and traditional knowledge and deep attachment to the country's natural heritage and beauty have developed amongst people.

A strong policy and legal framework formulated in this policy to guide control and regulate the conservation, access and use of biodiversity for long-term sustainability.

3.3. Vision 2020 and Economic Development and Poverty Reduction Strategy

Rwanda has developed several Strategy Papers such as Vision 2020 and the Economic Development and Poverty Reduction Strategy to guide its medium and long-term development. Wise management and use of the environment and its assets for economic development and poverty reduction are key goals of these policy documents. The Biodiversity Policy articulates the conservation goals as a key pillar of national development, linking them to national development goals as elaborated in the Policy Papers. This raises the need to:

- a. Harmonize biodiversity conservation with the country's economic blueprint Vision 2020 and the Economic Development and Poverty Reduction Strategy (EDPRS);
- b. Sustainably use biodiversity in natural ecosystems and agro-ecosystems;
- c. Ensure rational use of biotechnology;
- d. Mainstream biodiversity considerations into the national development planning, budgeting and decision-making processes;
- e. Develop and strengthen the policy, institutional, legal and human resource frameworks for sustainable biodiversity management;
- f. Provide a framework for access to Rwanda's genetic resources including equitable sharing of benefits for the use thereof;
- g. Harmonize conflicting policies in key sectors such as land, agriculture, water, forestry, fish and wildlife with a view to enhancing cross- and inter-sectoral linkages;
- h. Improve the conservation of biodiversity in national parks and wetlands;
- i. Address the emerging challenges to biodiversity such as climate change and unsustainable consumption and production and human settlements;
- j. Domesticated relevant international and regional environmental policies into national policies, strategies and action plans;
- k. Decentralize and devolve biodiversity management to the grassroots and enlist the participation of the private sector, non-governmental organizations (NGOs), community based organizations (CBOs) and other non-state actors; and
- l. Curb marked increase in loss of biodiversity; and
- m. Raise public awareness on biodiversity issues and enhance partnerships and stakeholder involvement.

3.4. Rwanda's International and Regional Obligations

Global cooperation to conserve biodiversity has been formalized through the CBD and other international and regional Conventions. Rwanda as a signatory to these conventions bears certain obligations to ensure that they are domesticated and implemented in accordance with their objectives. The state is required to develop national strategies, plans and programmes, or

adapt existing ones, to address the provisions of the CBD, and to integrate the conservation and sustainable use of biodiversity into sectoral and cross-sectoral plans, programmes and policies.

This Policy is partly Rwanda's response to this requirement. It articulates the country's policy options and strategies towards the implementation of the CBD and other international agreements as well as linking national biodiversity management with regional, sub-regional and bilateral initiatives.

4. POLICY GOAL, OBJECTIVES AND PRINCIPLES

4.1. Policy Goal

Recognizing that Rwanda's viability is dependent on the conservation of its biological resources and their contribution to livelihoods, food sovereignty, health, the environment, cultural diversity and the economy;

Recognizing further that the right to regulate access to genetic resources should not be exercised in such a way as to unduly deny other actors access to resources;

Acknowledging that Rwanda has potential to be a leader in biodiversity conservation in the region;

Concerned about the loss of biological diversity in Rwanda;

Concerned to ensure that Rwanda implements her international commitments under multilateral environmental agreements;

Noting that Rwanda has made some notable achievements in biodiversity conservation and can further build on these to ensure overall sustainable biodiversity management;

Reaffirming the inalienable rights of farmers and all other individuals to use their plant genetic resources such as seeds, plants or trees and the inalienable rights of traditional knowledge holders over their knowledge; and

Reaffirming Rwanda's sovereign rights over her biological resources and the concomitant duty to regulate access to those resources;

The goal of this Policy is therefore: ***To conserve Rwanda's biological diversity, to sustain the integrity, health and productivity of its ecosystems and ecological processes, whilst providing lasting development benefits to the nation through the ecologically sustainable, socially equitable, and economically efficient use of biological resources.***

The Purpose of this policy is to: ***provide an overarching framework for the conservation, sustainable utilization, access to biodiversity resources and fair and equitable sharing of benefits derived from the resources.***

This fits in with the Vision for Rwanda to be: ***A prosperous nation, whose people live and work in harmony with the natural environment, and which derives lasting benefits from the conservation and sustainable use of its rich biological diversity.***

4.2. Policy Objectives

The objectives of this Policy are to:

- Provide a comprehensive and cohesive policy framework that will strengthen the Government's ability to conserve and protect Rwanda's natural and cultural resources
- Provide a legal and institutional framework for biodiversity conservation and management throughout the country;
- Promote partnerships, incentives and benefit sharing to enhance biodiversity conservation and management;
- Promote generation, management of conservation knowledge, including traditional knowledge, and its application in the conservation of biodiversity;
- Provide a framework for access to genetic resources and the sharing of benefits derived from those resources;
- Promote positive attitudes towards biodiversity conservation and management.

4.3. Policy Principles

The following principles will underpin this Policy:

- **Intrinsic Value.** All life forms and ecological systems have intrinsic value.
- **Duty of Care.** All people and organizations should act with due care to conserve and avoid negative impacts on biodiversity, and to use biological resources sustainably, equitably and efficiently.
- **Sustainable Use.** The benefits derived from the use of Rwanda's biological resources are dependent upon:
 - Maintaining the ecological integrity of the natural systems;
 - Minimizing or avoiding the risk of irreversible change induced by humans;
 - Adequate investments to ensure conservation and sustainable use of biodiversity; and
 - Avoiding or minimizing adverse impacts of the use of non-renewable resources on biodiversity.
- **The Fair and Equitable Distribution of Benefits.**
- **Full Cost-Benefit Accounting.** Decision-makers and users of biological resources will be guided by economic approaches which assess the full social and environmental costs and benefits of projects, plans and policies that impact upon biodiversity, and which internalize costs borne to the environment and to society.
- **Informed and Transparent Decision-Making.**
- **The Precautionary Principle.** Where there is a threat of significant reduction or loss of biological diversity but inadequate or inconclusive scientific evidence to prove this, action should be considered to avoid or minimize threats.
- **Accountability and Transparency.** Those making and implementing decisions relating to the conservation and use of biodiversity in Rwanda will be accountable to the public for their actions through explicit, justifiable processes.
- **Subsidiarity.** Governance responsibilities belong at the level at which they can be most effectively carried out.

- **Participation.** Interested and affected individuals and groups will have an opportunity to participate in decisions about the ways in which biological resources are conserved and used.
- **Recognition and Protection of Traditional Knowledge, Practices and Cultures.**
- **Coordination and Cooperation.** An enabling framework will be provided for the future coordination and cooperation of biodiversity-related activities in Rwanda, in the east African sub-region, and globally.
- **Integration.** The conservation and sustainable use of biodiversity will be integrated strategically at all levels into national, district, local and sectoral planning, programmes, and policy efforts.
- **Global and International Responsibilities.** Rwanda has a shared responsibility for ensuring the conservation and sustainable use of biodiversity.
- **Evaluation and Review.** The policy will be part of an iterative process which will be monitored and reviewed regularly.

5. ANALYSIS

5.1. Major Drivers and Threats to Biodiversity

An analysis of the state of biodiversity carried out for the preparation of the National Biodiversity Strategy showed that human activities were the most harmful to biodiversity. The activities that pose threats to biodiversity include: the destruction of biotopes; poaching, pirating and illicit trade; uncontrolled introduction of exotic species and overexploitation of biological resources. The regression of natural ecosystems is accompanied by loss of biodiversity. The loss of the flora and the fauna is widespread in the whole country where habitats have been changed or destroyed. Current research has shown that 115 plant species are threatened with extinction in Rwanda.

The Rwanda Environment Outlook has succinctly laid out the major drivers of biodiversity loss in Rwanda to include:

- Population:* The population density in Rwanda is about 340 persons/km² on average with some rural districts recording densities of up to 1000 people /km². This has resulted in the occupation and development of land which is unsuitable for agriculture such as wetlands and steep slopes leading to degradation of natural resources evidenced by deforestation, reduction of biodiversity, soil erosion and the cultivation and other unsustainable use of wetlands;
- Land use changes:* Land use changes, particularly agriculture and rural and urban development, have negatively affected biodiversity across the landscape;
- Destruction of habitats:* While habitats provide an important resource base for rural people's livelihoods, rapidly increasing populations and other complex socio-economic factors have put enormous pressure on the limited productive land forcing the rural poor to resort to poor land use practices for subsistence;
- Natural disasters:* These are caused by climatic and seismo-volcanic disturbances and include drought, torrential rains, floods, landslides, earthquakes and volcanic eruptions;

- e. *Loss of Ecosystem Services*: Human activities have impaired the flow of ecosystem services on a large scale modifying or destroying natural ecosystems and causing deterioration of ecological services;
- f. *Inadequate Incentives*: Currently there are inadequate incentives to motivate communities and land owners to adopt land use practices that are compatible with biodiversity conservation and management;
- g. *Stakeholder Participation in Biodiversity Conservation*: Since Rwanda's conservation policies are premised on the principle that "Conservation is everybody's business", participatory processes need to be developed to ensure participation of various stakeholders;
- h. *Inadequate accurate scientific data*: There is a dearth of comprehensive studies detailing Rwanda's biodiversity;
- i. *Biopiracy*: Biopiracy of genetic materials, soil micro-organisms, animals, genes and indigenous knowledge identified, developed and used by local communities is both a threat and a challenge to biodiversity conservation and management;
- j. *Climate change*: Globally, the climate is changing resulting in direct physiological impacts on individual species, changes in abiotic factors, changed opportunities for reproduction and recruitment and altered interactions among species;
- k. *Invasive alien species*: Invasive alien species are a major threat to biodiversity resources particularly in aquatic ecosystems.

5.2. Addressing Rwanda's Socio-Economic Challenges

Through her "Vision 2020", Rwanda seeks to establish a competitive, diversified and balanced economy by the year 2020 and to enable the people of Rwanda to exit from underdevelopment and poverty, in the context of a stable political environment based on peace and stability. The protection and management of the environment is among the pillars of Vision 2020. The objective of the Government is that by 2020, it will have built a nation in which pressure on natural resources, particularly on land, water, biomass and biodiversity, has significantly been reduced and the process of environmental pollution and degradation has been reversed.

This Policy provides options and strategies for implementing the Vision 2020 goals on environmental sustainability.

5.3. Addressing Policy Related Challenges

The existing regulatory framework for biodiversity and conservation in Rwanda is weak, outdated and dispersed. The process of formulating policies and laws in various sectors is now in progress (biodiversity, forestry, water). This Policy adds to the suite of Government policies.

5.4. Biodiversity Conservation and National Development

Rwanda's biodiversity contributes to community livelihoods in terms of food, medicine, energy, shelter, and a number of social values. It also generates many economic benefits for the country, through the creation of business, wealth and jobs. Rwanda's tourism sector, which is now the largest contributor of foreign exchange, is largely based on visitation of natural areas such as parks and natural forests.

This policy provides for incentives, capacity building and knowledge, to build the wide public support, required to conserve wildlife resources for their contribution to poverty reduction.

5.5. Conservation Achievements

While substantial gains and progress have been achieved over the last fifteen years, conservation should increasingly focus on livelihoods for the local people if it has to win their active support. Maintaining the integrity of the remaining natural ecosystems and rehabilitating some of the degraded ones, remains a big challenge because rural communities continue to exert a strong pressure in search for resources to satisfy their needs. This policy establishes a framework for building on past successes to address the contemporary and future challenges and balancing human and environmental needs.

6. PREFERRED OPTIONS

6.1. Conserving the Diversity of Landscapes, Ecosystems, Habitats, Communities, Populations, Species, and Genes in Rwanda

This chapter deals with those aspects of the policy concerning the conservation of biodiversity, both inside and outside of protected areas. It includes measures required to protect, maintain, rehabilitate, restore, and enhance biodiversity such as:

1. Identifying important components of biodiversity and threatening processes;
2. Establishing a comprehensive strategy for land-use planning that integrates and connects biodiversity conservation to serve diverse production and conservation goals;
3. Maintaining and strengthening existing arrangements to conserve Rwanda's indigenous biodiversity, both in and out of protected areas;
4. Establishing and managing a representative and effective system of protected areas;
5. Promoting environmentally sound and sustainable development in areas adjacent to or within protected areas;
6. Restoring and rehabilitating degraded ecosystems, and strengthening and further developing species recovery plans where appropriate;
7. Controlling, eradicating and preventing the introduction of harmful alien species;
8. Regulating the transfer, handling, use and release of genetically modified organisms; and
9. Strengthening measures for the conservation of biological diversity outside of natural habitats (ex-situ conservation).

6.1.1. Identification

6.1.1.1. Policy objective

To identify important components of biodiversity and threatening processes.

Although considerable information concerning some aspects of Rwanda's biodiversity already exists, this information needs to be gathered, ordered, and strategically used. Information also exists regarding processes or activities that have adverse impacts on biodiversity, but in many instances this is patchy, inconclusive, and not tailored towards facilitating effective management.

6.1.1.2. Strategies and activities to achieve this Objective

The Government, in collaboration with relevant interested and affected parties, shall:

1. Identify, develop and apply biological, social and economic criteria and indicators for identifying components of biodiversity important for its conservation and sustainable use;
2. Identify and develop mitigating measures for processes or activities that have or are likely to have significant adverse impacts on terrestrial, aquatic, and marine and coastal biodiversity;
3. Undertake the research necessary to improve understanding of the consequences of threatening processes or activities on ecological functions and processes, and other components of both terrestrial and aquatic biodiversity;
4. Develop a mechanism to manage and collate information, place it in the public domain, and ensure that decisions taken upon the best applicable knowledge available.

6.1.2. National Biodiversity Planning

6.1.2.1. Policy Objective

To establish a comprehensive strategy for land-use planning that integrates and connects biodiversity conservation to serve diverse production and conservation goals.

Biodiversity planning is steadily moving from localized, piecemeal efforts to a broader approach that emphasizes planning, protection, monitoring, and management of entire landscapes and ecosystems. Integrated conservation planning ultimately arrives at a land-use mosaic comprising of core protected areas surrounded by transition zones with compatible human uses that serve both production and conservation. The aim is to connect the core PAs within the landscapes through buffer zones, corridors and dispersal areas.

6.1.2. 2. Strategies and activities to achieve this Objective

The Government, in collaboration with relevant interested and affected parties, shall:

1. Develop an interdisciplinary process of gathering, combining, interpreting and communicating knowledge from diverse sectors and disciplines;

2. Undertake Ecological Gap Analysis as a means of assessing the status of biodiversity, species and habitats, and identifying and mapping critical areas requiring protection;
3. Develop and design a national conservation system plan for the total PA system covering the full range of ecosystems found in the country and identifying the purposes of PAs, relationships among and between PAs, and other land uses;
4. Develop explicit strategies and methods for maintaining conditions within PAs that are required to foster the persistence of key natural features;
5. Promote environmentally sound and sustainable development in areas adjacent to or within PAs; and
6. Develop and introduce appropriate strategies, mechanisms and incentives to integrate biodiversity conservation within the broader ecological and social landscape, and encourage conservation in private and communal areas adjacent to PAs.

6.1.3. Biodiversity Conservation

6.1.3.1. Policy objective

To maintain and strengthen existing arrangements to conserve Rwanda's biodiversity, both inside and outside of protected areas.

Past approaches to biodiversity conservation have not given adequate attention to the conservation of landscapes and ecosystems outside PAs and have neglected lesser known groups such as invertebrates, fungi, and microorganisms. Through this policy Government shall adopt a more holistic and coordinated approach towards the conservation of biodiversity.

6.1.3.2. Strategies and activities to achieve this objective

The Government, in collaboration with interested and affected parties shall:

1. Conserve components of biodiversity identified by Objective 6.1.1.1 through a variety of mechanisms such as legislation, planning controls, guidelines and PA designations;
2. Consolidate, coordinate and improve existing legislation and regulations wherever possible and appropriate to eliminate duplication and avoid conflicts;
3. Introduce legal measures and incentives to conserve important ecosystems, habitats, and landscapes outside of protected areas, including rangelands and their associated vegetation and indigenous wildlife resources;
4. Promote an ecological management approach to planning, whereby conservation is proactively incorporated into land-use plans as a specific land use;
5. Strengthen existing support for research on the improved understanding of the structure, function and composition of Rwanda's terrestrial and aquatic ecosystems.

6.1.4. Species Conservation

6.1.4.1. Policy Objective

To ensure in situ conservation of Rwanda's species diversity and enhance the maintenance and recovery of viable populations of species

6.1.4.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties shall:

1. Develop and implement detailed species management strategies and plans for keystone and indicator species;
2. Establish and regularly update an effective framework for identifying and listing endangered and threatened species;
3. Develop recovery plans for the conservation and survival of endangered and threatened species;
4. Develop an effective mechanism for designating critical habitats concurrently with listing of species of conservation concern;
5. Develop measures for the conservation and management of species shared with neighbouring countries.

6.1.5. Protected Areas (PAs)

PAs are a key part of *in situ* conservation biodiversity. GoR recognizes that the PAs are critical for conserving biodiversity. Currently, Rwanda has only one category of PAs, which comprises of three terrestrial National Parks administered by the State. The parks are not representative of the whole diversity of species and ecosystems and do not form part of a planned network. The need to strengthen and rationalize this system, and so establish an effective, efficient, and representative PA system is considered by Government to be an issue of priority importance.

6.1.5.1. Policy Objective

To establish and manage efficiently a representative and effective system of protected areas.

6.1.5.2. Strategy and Activities to achieve this objective

Government, in collaboration with interested and affected parties, shall:

1. Develop a comprehensive plan of action to strengthen the PA system by identifying terrestrial and aquatic landscapes that support ecosystems, habitats, populations, and species which contribute or could contribute to Rwanda's system of representative PAs;
2. Increase the area under the PA system and enhance management effectiveness by expanding existing parks, establishing new PAs and diversifying ownership and management regimes;
3. Identify and provide legal protection as appropriate to vital and endangered fragile ecosystems, such as wetlands, watersheds, lakes and river-banks;
4. Promote and support the conservation of urban biodiversity through the creation of urban parks, corridors and greenways;
5. Involve local communities and other interested and affected parties in decisions concerning the designation of new PAs, the adjustment of PA boundaries, and the development and implementation of PA management plans;

- 6 Encourage private landowners to participate in conservation schemes such as conservancies, private nature reserves and public-private partnerships for managing state protected areas.

6.1.6. Rehabilitation of Degraded Ecosystems

6.1.6.1. Policy objective

To restore and rehabilitate degraded ecosystems, and strengthen and further develop species recovery plans as a contribution to the conservation and sustainable use of biological diversity.

Over the years there have been various efforts to rehabilitate degraded areas, primarily to restore the productivity of agriculturally degraded lands. There have also been efforts to reintroduce threatened species and promote their recovery within PAs. However, to date there has been no overall national approach to rehabilitation which aims to restore ecosystem functioning and biodiversity. Government recognizes that the rehabilitation of degraded ecosystems is a major but vital task, requiring the commitment of significant resources from various sources.

6.1.6.2. Strategies and Activities to achieve this Objective:

The Government, in collaboration with interested and affected parties, shall:

1. Prioritise the rehabilitation of degraded ecosystems and develop a programme to rehabilitate degraded systems of national concern based upon biological and socio-economic criteria;
2. Develop strategies, plans and measures for the identification, restoration, recovery and conservation of populations of threatened species;
3. Require rehabilitation measures to be undertaken as an integral part of environmental impact assessments to minimize potential negative impacts and to enhance possible positive impacts on biodiversity;
4. Address concerns relating to the genetic contamination and loss of genetic variability amongst populations.

6.1.7. Ex-Situ Conservation

6.1.7.1. Policy objective

Support, complement and enhance in-situ conservation through strengthening measures for the ex-situ conservation of components of biological diversity.

While *in-situ* conservation is recognized as the cornerstone of its strategy to conserve biodiversity, *ex-situ* conservation, and its techniques and facilities, are considered to be essential measures to support, complement and enhance *in-situ* conservation. Some threatened species require cultivation or breeding in captivity to build up their numbers for reintroduction to the

wild. Other genotypes and species can survive only *ex-situ* because of total loss or alteration of their habitat. Rwanda has developed arboreta and a gene bank which could be developed to build greater capacity for *ex-situ* conservation.

6.1.7.2. Strategies and Activities to achieve this objective

The Government, in collaboration with interested and affected parties, shall:

1. Establish local and national gene banks and other facilities for *ex situ* conservation;
2. Enhance the participation of *ex-situ* institutions in identified priority *in-situ* conservation activities ;
3. Coordinate the efforts of diverse institutions to enable the development of a comprehensive national strategy to conserve and cost-effectively manage and utilize Rwanda's *ex-situ* genetic resource collections;
4. Adopt measures by means of *ex-situ* conservation for the recovery and restoration of threatened species, and for their introduction into natural habitats under appropriate conditions;
5. Build human and technical capacity for *ex-situ* conservation, and strengthen the educational role of *ex situ* conservation facilities;
6. Coordinate *ex-situ* collaborative programmes within the East African Region to maximize conservation of the region's genetic diversity.

6.2. Environmentally Sound and Sustainable Development outside Protected Areas

Urgent attention is required to ensure that biodiversity is conserved not only within protected areas, but across the landscape, and that sustainable development is promoted throughout Rwanda. Special attention should be paid to areas adjacent to protected areas, given that activities occurring in such areas may be critical to the protected area's success. Furthermore, the ecological landscape is often a continuum between designated protected areas and surrounding regions. The viability of PAs and the maintenance of biodiversity outside them is thus dependent upon the extent to which biodiversity conservation is socially, economically, and ecologically integrated into the entire landscapes.

6.2.1. Conservation in Areas immediately Adjacent to PAs

6.2.1.1. Policy Objective

Promote environmentally sound and sustainable development in areas adjacent to or within protected areas, with a view to furthering protection of these areas

Protected areas in Rwanda fall within some of the most populous and poverty-stricken parts of the country. As protected areas are often centres of economic activity, social and economic conditions within and outside of these areas contrast starkly. In the creation of protected areas, many communities were forcibly removed without adequate compensation. Furthermore, a

"fences and fines" approach resulted in people being denied access to resources upon which they depended. Aggravating these circumstances is the fact that protected areas have remained inaccessible to the majority of the people, and are perceived to provide few benefits to them. These imbalances are well recognized, and are in some instances being redressed by conservation and other agencies.

6.2.1.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected groups shall:

1. Develop and introduce appropriate strategies, mechanisms and incentives to integrate PAs within the broader ecological and social landscape;
2. Support and promote activities adjacent to PAs that are compatible with and which complement the objectives of the protected area;
3. Support the development of private and community-based wildlife management initiatives;
4. Enhance the capacity of communities residing in or adjacent to protected areas to participate in protected area management through providing appropriate training and education, and through recognizing local expertise and traditional institutions;
5. Establish connectivity and gene flow through the establishment of corridors and buffer zones between patches, and between PAs and other habitats.

6.2.2. Conservation of Biodiversity beyond Protected Areas

6.2.2.1. Policy Objective

To ensure sustainable management of areas beyond national parks for holistic sustainable management of biodiversity

The landscapes outside PAs have a full range of ecosystems with varying degrees of human influence. Even those ecosystems that have been intensively modified and managed by humans contain significant resources of conservation value. The land outside protected areas is largely under the control of private owners and communities. With proper incentives, land use practices that are compatible with conservation can be introduced and promoted, in some areas.

6.2.2.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected groups shall:

1. Carry out a survey of existing community and private conservation initiatives in Rwanda and document their experiences for use in developing processes and models for enhancing such management;
2. Provide appropriate incentives for urban and district authorities, individual land owners and communities to engage in biodiversity conservation and management;
3. Formulate "Best practice" guidelines for managing urban, private and community conservation reserves, parks, sanctuaries and conservancies;
4. Provide technical and financial support to develop and implement integrated management plans that incorporate multiple and compatible land uses;

5. Develop mechanisms that will enable local authorities, private owners and community groups to enter into transparent management agreements with professional conservation organizations to provide technical expertise and finances.

6.2.3. Conservation of Agrobiodiversity

6.2.3.1. Policy Objective

To ensure sustainable management of agrobiodiversity

Historical and current evidence demonstrates that the integration of biodiversity conservation into agricultural practices (agriculture, pastoralism and agroforestry) is vital for its maintenance, and can contribute multiple ecological and socio-economic benefits. Practices that conserve biodiversity are necessary at all levels of land-use planning. Agriculture is based on a variety of managed ecosystems and agricultural ecosystems as part of biodiversity.

6.2.3.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected groups shall:

1. Generate data on the status and trends of Rwanda's agrobiodiversity and support continuous agricultural biodiversity assessment and monitoring;
2. Integrate and mainstream agro-biodiversity into national and sectoral biodiversity and land use planning policies and decision making processes;
3. Domesticating the International Treaty on Genetic Resources for Food and Agriculture;
4. Strengthen local capacities for active participation in formulation of research agendas and problem-solving; use of traditional skills and knowledge and provide opportunities for additional learning and organizing;
5. Develop institutional, policy and legal guidelines and provisions for the conservation of agro-biodiversity and agro-ecosystems;
6. Domesticating natural plants such as medicinals and fodder trees and shrubs so as to reduce pressure on parks and natural habitats.

6.3. Controlling, Eradicating and Preventing Threats to Biodiversity

6.3.1. Biosecurity

6.3.1.1. Policy Objective

To harmonize and implement a coordinated biosecurity system and comprehensively manage risks to food safety, animal and plant health and the environment

Biosecurity measures are deposited in laws and regulations dealing with “methods, testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labeling requirements directly related to food safety”. In the preamble to the World Trade Organization's (WTO) Agreement

on Sanitary and Phytosanitary Standards (SPS) Agreement, the Codex Alimentarius Commission (Codex), the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC) are designated as standard setting bodies for food safety, animal and plant health respectively. Rwanda is a party to these international agreements and therefore needs to synchronize her biosecurity regime to promote plant health as well as secure food security.

6.3.1.2. Strategies and Activities to achieve this objective

The Government shall:

1. Domestic international legal instruments regulating plant and animal health and food safety such as the IPPC, OIE, CBD, Codex and WTO SPS Agreement.
2. Map the different normative and functional components of biosecurity within different laws and propose a focal point for dealing with biosecurity to coordinate the functions of all institutions in Rwanda.
3. Create a cohesive legal and institutional biosecurity regime bringing together plant health, animal health and food safety.

6.3.2. Alien and Invasive Species

6.3.2.1. Policy objective

Prevent the introduction of potentially harmful alien species and control and eradicate alien species which threaten ecosystems, habitats or indigenous species.

Many alien plant and animal species have been introduced into Rwanda over the years. A large proportion of such introductions have been deliberate, for purposes of agriculture, forestry, or even conservation. Some of the alien species have established themselves; spread modified ecosystems, habitats, or species. In Rwanda, some of the most serious invasive species include the water hyacinth in wetlands and lakes and Lantana camara (Umuhengeri) in the cultivated fields, especially in the east of the country.

GoR is acutely aware of the adverse impacts of harmful alien organisms on biodiversity and is committed to controlling and regulating the introduction and spread of such organisms.

6.3.2.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Adopt a proactive, preventative and precautionary approach to control the introduction and spread of alien organisms;
2. Develop a strategy to control invasive species drawing on existing international programmes such as The Global Invasive Species Program and the Convention on Biological Diversity's Guiding Principles on invasive alien species (Decision VI/23);

3. Review, streamline, and if necessary strengthen existing legislation to control the introduction and spread of potentially harmful alien organisms, and improve the enforcement, effectiveness and consistency of legislation;
4. Improve public education and awareness concerning the risks posed by the planting or illegal importation of alien species;
5. Negotiate and liaise with neighbouring countries to maximize commonalities and minimize conflicts between policies, legislation, and practices relating to alien organisms that threaten biodiversity.

6.3.3. Genetically Modified Organisms

6.3.3.1. Policy objective

To regulate the transfer, handling, use and release of genetically modified organisms in order to minimize the potential risks to biodiversity and human health while maximizing its benefits to society.

Modern biotechnology, involving the use of recombinant DNA techniques to make genetically modified organisms (GMOs), has elicited controversies surrounding its likely impacts on health, environment and economy in poor countries. Rwanda's increasing global trade will necessitate dealing with or introduction of biotechnology products, some of which may contain genetically modified organisms (GMOs). Rwanda is expected to have a system for dealing with GMO through trade. This calls for establishment of processes and procedures for dealing with transboundary movement of living modified organisms.

6.3.3.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Provide a framework for safe development and application of biotechnology in the country, bringing them into conformity with international obligations and commitments and continue to participate in international efforts to develop biosafety measures;
2. Review, streamline, and strengthen existing and proposed legislation to regulate the transfer, handling, use and release of genetically modified organisms in order to minimize the potential risks to biodiversity and human health;
3. Improve public education and awareness concerning the risks and benefits of biotechnology, including GMOs;
4. Develop and support national capacity-building programmes in risk assessment and risk management for the safe transfer, handling, use and release of GMOs;
5. Negotiate and liaise with neighbouring countries to maximize commonalities and minimize conflicts between policies, legislation and practices relating to genetically modified organisms.

6.4. Integrating biodiversity considerations in other national and regional initiatives

Rwanda's biodiversity is used by many different sectors in many different ways. At a broad level, these can be divided into economic sectors which directly use biodiversity resources, those that

depend upon ecological processes and those whose activities can have adverse impacts on biodiversity. Biodiversity questions are therefore largely cross-sectoral, and the only way in which conservation and sustainable use can be tackled effectively is by a collective approach which pulls together the different institutions from diverse sectors.

6.4.1. Sectoral and Cross-Sectoral Approaches

6.4.1.1. Policy objective

To integrate the conservation and sustainable use of biological diversity into all sectoral and cross-sectoral plans, programmes and policies at all levels of government

To achieve the goal of using biological resources sustainably and minimizing adverse impacts, biodiversity considerations must be integrated into all spheres of national, district and local decision-making, both within and across different sectors. Of critical importance are the mainstreaming of biodiversity considerations into sectoral policymaking and the strengthening of the linkages between relevant agencies at all levels. Such sectors include: forestry, agriculture, wildlife, water and trade and investment. Further, it is necessary that the costs associated with the degradation and depletion of biological resources be incorporated into the decisions of economic and social actors at various levels, to reverse the tendency to treat these resources as “free goods”.

6.4.1.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Ensure that existing and proposed national policies, plans and programmes support the conservation and sustainable use of biological resources and minimize adverse impacts on biodiversity;
2. Require all government departments responsible for activities affecting biodiversity to develop sector-specific plans based upon agreed guidelines;
3. Establish a national mechanism, representative of key sectors, to oversee, coordinate, and better integrate government policies which directly or indirectly affect biodiversity;
4. Establish a system for accounting and adopt measures to allow for the full reflection of environmental, social and economic costs and benefits to be reflected in economic markets, in national indices of economic status, the system of national accounts, trade and investment policies;
5. Ensure that all development activities, whether by government, foreign direct investors or otherwise, undertake strategic and environmental impact assessments incorporating biodiversity indicators before approval, implementation and decommissioning.

6.4.2. Mainstreaming Gender

6.4.2.1. Policy Objective

To integrate gender considerations in biodiversity management

Rwanda recognizes that gender equity is an essential principle to ensure sustainability, fair management and successful biodiversity conservation efforts when analyzing the different roles, responsibilities, levels of performance and participation in decision-making. The CBD, Rio Declaration and Agenda 21 point to the need to recognize the role that women play in biodiversity management and sustainable development as a critical factor in implementing the principle of intra-generational equity, an internationally recognized principle in Multilateral Environmental Agreements (MEAs) that Rwanda is a party.

6.4.2.2. Strategies and Activities to Achieve this Objective

The Government in collaboration with interested and affected parties therefore, shall:

1. Mainstream gender issues and gender equity into biodiversity conservation and management.
2. Develop and implement a Gender and Biodiversity Conservation Strategy and Action Plan including:
 - a. Mechanisms for partnership between agencies working on biodiversity conservation and management and women's groups;
 - b. Provide incentives to attract women into biodiversity conservation careers and occupations.

6.4.3. Mainstreaming the Youth

6.4.3.1. Policy Objective

To engage the youth in biodiversity management initiatives

The youth are in a unique position to help in biodiversity conservation and management and are also best placed to inform their peers at school, at home, in the family and in the village about necessary actions and interventions. Involving the youth in sustainable biodiversity management initiatives is critical to the actualization of the principle of inter and inter-generational equity, an internationally recognized equity principle.

6.4.3.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Mainstream youth issues into biodiversity conservation and management plans and programmes;
2. Empower the youth to become catalysts for biodiversity conservation by providing tools, mechanisms and opportunities that enable them to participate effectively;

3. Educate the youth on the environmental, economic and socio-cultural values of biodiversity resources;
4. Develop and implement a Youth and Biodiversity Conservation Strategy and Action Plan including:
 - a. Mechanisms for working partnerships between agencies working on biodiversity conservation and management and youth groups;
 - b. Provide incentives to attract the youth into biodiversity conservation careers and occupations.

6.4.4. Regional and International Obligations

6.4.4.1. Policy Objective

To align the policy with Rwanda's international and regional obligations

Rwanda has ratified a number of multilateral and regional environmental agreements that are important for sustainable biodiversity management. Examples of such multilateral and regional environmental agreements include: the Convention on Biological Diversity (CBD), the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), Convention on International Trade in Endangered Species (CITES), the Convention on Migratory Species (CMS), the World Heritage Convention, the Nairobi Convention, United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the United Nations Convention to Combat Desertification (UNCCD). Rwanda is also an actor in UNESCO's Man and Biosphere Programme.

Regionally, Rwanda is part of the New Partnership for Africa's Development (NEPAD), the Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC) and the associated Protocols. In addition, Rwanda is cooperating with other riparian states under the Nile Basin Initiative (NBI) to ensure sustainable use of the Lake Victoria waters and with the Democratic Republic of Congo and Uganda in the conservation of mountain gorillas and their habitat. The initiatives are not self-executing and they cannot function in the absence of concerted action by participating states.

6.4.4.2. Strategies and Activities to Achieve this Objective

Government, in collaboration with interested and affected parties therefore, shall:

1. Establish and strengthen coordination mechanisms to ensure consistent negotiations, implementation and reporting in multilateral and regional environmental agreements critical for sustainable biodiversity management;
2. Promote and support the establishment of transboundary and/or transfrontier biodiversity conservation and management initiatives;
3. Keep and regularly update a register of all regional environmental agreements and initiatives to which Rwanda is a party and ensure their domestication and effective implementation and reporting;
4. Mobilize resources from financing mechanisms under MEAs, such as the Global Environment Facility (GEF), to support sustainable biodiversity management for national development;

5. Mainstream sustainable biodiversity management into regional and sub-regional trade regimes and other initiatives to which it is a member.

6.4.5. Partnerships and Stakeholder Involvement

6.4.5.1. Policy Objective

To facilitate the development of partnerships and stakeholder involvement in sustainable biodiversity management

Partnerships represent a sustained commitment to move forward together to reach a higher common objective. To ensure an inclusive partnership and stakeholder involvement in decision making, ways must be found to ensure both wide representation from the private sector and civil society and the voicing of community issues. Indeed private sector and civil society actors play a central role in biodiversity protection and management and have the advantage of being more independent of political pressures than governmental agencies. Participation of non-state actors can also enhance investment in the biodiversity sector and facilitate the development of mechanisms for a broad framework for building of partnerships between them and the government.

6.4.5.2. Strategies and Activities to Achieve this Objective

The Government in collaboration with all stakeholders and affected parties shall:

1. Map stakeholders engaged in or with potential to contribute to sustainable biodiversity management;
2. Develop and implement a Strategy on Partnerships and Stakeholders Involvement to enhance biodiversity management;
3. Promote investments in biodiversity initiatives and programmes by providing appropriate fiscal and economic incentives;
4. Develop and implement mechanisms for conflict resolution and management in the conservation and management of biodiversity at local and national levels.

6.5. Using Biological Resources Sustainably and Avoiding or Minimising Adverse Impacts on Biological Diversity

6.5.1. Common Approaches for Conservation and Sustainable Use of Biological Resources in all Ecosystems

6.5.1.1. Policy Objective

To conserve and use sustainably biological resources in terrestrial and aquatic ecosystems and avoid or minimize adverse impacts on the biodiversity of such areas.

Ensuring the conservation and sustainable use of terrestrial and aquatic ecosystems, and minimizing adverse impacts on the biodiversity of such areas will require several common approaches to be adopted.

6.5.1.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Strengthen and streamline existing, or introduce new policies, legislation, incentives, and disincentives to avoid or minimize the adverse effects of human activities on the biodiversity of terrestrial and aquatic biodiversity;
2. Develop guidelines and determine sustainable harvesting rates and utilization levels for species and ecosystems used for commercial, recreational, or subsistence purposes;
3. Undertake research, develop and apply methods and technologies aimed at removing or reducing the adverse impacts of harmful activities on biodiversity and ecosystems, and improving the management;
4. Strengthen management systems for terrestrial and aquatic areas by including traditional knowledge, innovations and practices where applicable;
5. Restore and rehabilitate degraded ecosystems where practical;
6. Negotiate and liaise with neighbouring countries to maximize commonalities and minimize conflicts between policies, legislation and practices relating to cross-border areas such as mountain ranges, water catchments, marine and coastal regions, as well as areas required for animal migration.

6.5.2. Terrestrial Ecosystems

5.5.2.1. Policy Objective

To harness existing opportunities, through conserving and using biological resources sustainably, to optimize both conservation and development benefits, and to minimize the adverse impacts of various activities on terrestrial biodiversity.

The loss of biodiversity in terrestrial areas of Rwanda is a matter of grave concern, requiring urgent action by diverse sectors at many different levels.

6.5.2.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Investigate, formulate and implement integrated land-use planning approaches that include multiple natural resource activities which are compatible with and which complement the conservation and sustainable use of biodiversity;
2. Promote the conservation of biodiversity in urban areas by encouraging retention of habitat and wherever possible focusing future development on existing built-up areas;
3. Encourage the planting of indigenous crops and trees to build the local resource base and to improve living environments;

4. Strengthen delivery of extension and research services related to the management of agricultural, forestry, and pastoral systems to ensure the sustainable use of biological resources and the conservation of biodiversity.

6.5.3. Aquatic and Wetland Ecosystems

Adverse impacts on freshwater systems are of critical concern given the increasing demand for water in the country. Salinization, eutrophication, and pollution by heavy metals, industrial effluents, pesticides, insecticides and herbicides have considerably reduced both surface- and ground-water quality. Catchment changes through afforestation, alien plant invasion, irrigation and over-abstraction, and human settlement have substantially reduced natural run-off and groundwater levels. Further, wetlands represent some of the most threatened ecosystems, and as such their conservation and sustainable use is a crucial component of this policy.

6.5.3.1. Policy Objective

To secure and effectively manage the country's wetlands and freshwater systems, and ensure that the future management of such areas will take place in an integrated manner and their resources utilized sustainably, and adverse impacts on aquatic biodiversity minimized.

6.5.3.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Support the principle that domestic and environmental needs will enjoy priority use of water;
2. Facilitate the development of appropriate legislation to secure the conservation of wetlands, and to maintain their ecological and socio-economic function and promote the establishment of a National System of Protected Wetlands;
3. Determine the impact of aquaculture species and management practices on biodiversity, and develop appropriate guidelines for aquaculture developments;
4. Strongly promote the development of catchment-specific partnerships and joint management plans between the range of institutions, organizations and individuals engaged in managing and using wetlands, catchments and associated aquatic areas;
5. Provide leadership in regional wetland conservation efforts, through the effective and coordinated management of transboundary water and biological resources in the Albertine Rift.

6.5.4. Land-Use Planning and Environmental Assessment

6.5.4.1. Policy objective

To integrate biodiversity considerations into land-use planning procedures and environmental assessments.

Biodiversity is often adversely affected by planning and development decisions and actions. This may be through a failure to incorporate biodiversity considerations into physical plans, through

inadequate information and misguided decisions; or because of inappropriate policies. While EIAs should be mandatory and as independent as possible, many of them are often project-based and therefore fail to consider cumulative environmental impacts within the bioregion.

6.5.4.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Review land-use planning and environmental assessment procedures in Rwanda and the effectiveness of existing planning controls and adopt a bioregional approach to planning to ensure that biodiversity conservation is proactively incorporated into land-use plans;
2. Support the incorporation of Integrated Environmental Management (IEM) principles and appropriate environmental procedures into all planning controls and legislation;
3. Investigate, formulate and implement integrated land-use planning approaches that include multiple natural resource activities which are compatible with and which complement the conservation and sustainable use of biodiversity;
4. Integrate consideration of the cumulative and secondary impacts on biological diversity of development proposals into regional planning processes and EIA procedures.

6.6. Ensuring that Benefits Derived from the Use and Development of Rwanda's Genetic Resources Serve Local Community and National Interests

Rwanda contains an extraordinary diversity of genetic material which has the potential to be used in a range of commercial and environmental applications. Rwanda is also dependent upon local and foreign genetic material for its agriculture, horticulture, and forestry industries, and thus requires continued access to broad gene pools of genetic resources.

Biodiversity prospecting (the search for commercially valuable genetic and biochemical resources from nature) can yield benefits for countries rich in genetic diversity, especially with regard to enhancing research capacity and developing technology. This requires a well considered strategy on access to genetic resources and benefit sharing. Questions that are central here are: the ownership of biodiversity; equitable distribution of benefits derived from the use of biodiversity; and the fair compensation for local and traditional knowledge about biodiversity. The CBD was the first international agreement to establish the sovereign rights of nations over their genetic resources.

6.6.1. Access to Genetic Resources

6.6.1.1. Policy objective

To control access to Rwanda's indigenous genetic resources through the introduction of appropriate regulatory and institutional frameworks.

Rwanda's genetic resources provide valuable opportunities for the nation to enhance the benefits from its vast biological wealth. It is clearly in Rwanda's national interest to control access to its genetic resources, and to ensure that benefits arising from the use and development of such resources serve the national good. It is, however, also in country's interest to ensure that access is not unnecessarily restrictive, and that conditions are provided which stimulate

scientific and economic activities and allow continued access to foreign sources of genetic material. This Policy pursues an approach whereby access to Rwanda's genetic resources is both regulated and facilitated, in line with equity principles.

6.6.1.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Develop detailed guidelines for biodiversity prospecting by domestic and foreign companies;
2. Establish through legislation, a national clearing house to regulate and administer all exchanges of genetic resources and ensure that the collection of biological and genetic resources does not adversely affect the conservation status of genes, species, population, community, habitat, ecosystem, or landscape;
3. Develop and implement an efficient permit system for the collection of any biological or genetic resource to be used for research, trade or commercial purposes which will include the provision of comprehensive information from users and collectors and benefit-sharing arrangements;
4. Require that benefit-sharing arrangements take into consideration the: need to strengthen the conservation of biodiversity in Rwanda and to stimulate economic development in the most disadvantaged parts of the country; rights of local communities, farmers, and others holding traditional knowledge to benefit from co-ownership of research data, patents, and products derived from their knowledge; need to adopt a multi-faceted approach to sharing of monetary and non-monetary benefits in the short and long-terms; and need to strengthen Rwanda's science and technology capacity.

6.6.2. Equitable Sharing of Benefits

6.6.2.1. Policy Objective

To facilitate the sharing of benefits arising from the use of genetic resources

The CBD links access to genetic resources to the fair and equitable sharing of benefits arising from the use of the resources. Such benefits include scientific and technological knowledge, skills enhancement, upfront payment on collection of genetic resources and royalties on products developed from the material. The onus to develop explicit guidelines on the way the benefits should be shared belongs to national authorities, who should formulate policy, legislative or administrative measures.

6.6.2.2. Strategies and Activities to achieve this Objective

The Government shall facilitate the following:

1. Put in place mechanisms for equitable sharing of benefits arising from the use and commercialization of Rwanda's plant genetic resources and related traditional knowledge among the current generation (intra-generational equity) and between generations (inter-generational equity);

2. Ensure equitable sharing of benefits arising out of the use of accessed plant genetic resources, their by-products, innovations and practices associated with their use and applications and knowledge relating thereto;
3. Ensure that benefits are channeled to the concerned holders of plant genetic resources/traditional knowledge in a manner which treats men and women equitably;
4. Ensure that concerned local community or communities participate in devising benefit sharing schemes.

6.7. Expanding the Human Capacity to Conserve Biodiversity, to Manage its Use, and to Address Factors Threatening it

6.7.1. Public Education and Awareness

The Government considers public support and participation to be one of the most critical issues to address in the implementation of this policy. Public education and sensitization will help redress negative perceptions and promote the broadest public participation so that the conservation and sustainable use of biodiversity becomes an issue of concern and meaning to all Rwandans.

6.7.1.1. Policy objective

To increase public education, awareness and appreciation, of the value and importance of biodiversity, and public involvement in its conservation and sustainable use.

6.7.1.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with relevant interested and affected parties, shall:

1. Develop and implement targeted public awareness and sensitization programmes for different target audiences;
2. Encourage organizations engaged in researching, managing or conserving biodiversity to work together and to disseminate information about biodiversity, and develop or strengthen biodiversity education and interpretative programmes to different audiences;
3. Establish a Joint Outreach Service by Conservation Agencies, to be based in the Districts to support the development and implementation of community extension programmes which enable people develop the capacity to conserve and sustainably manage local biodiversity resources;
4. Encourage those in the public eye, such as the print and electronic media, entertainers, artists, sports people, religious leaders, politicians, and corporate executives to popularize biodiversity and the actions needed to conserve it;
5. Integrate issues concerning biodiversity conservation and sustainable use into ongoing efforts to develop a national environmental education system.

6.7.2. Improving Understanding about Biodiversity through Research

6.7.2.1. Policy objective

To improve the knowledge and understanding of Rwanda's biodiversity necessary for its effective conservation by promoting biodiversity research and its use in decision-making.

Some biological research has been conducted in Rwanda in past years, resulting in the development of a knowledge base and understanding concerning aspects of the country's biodiversity. However, the existing biological knowledge is patchy, and more research is required to improve our understanding of the interactions between biological and social processes and the underlying causes of the decline in biodiversity. The approach pursued by this policy aims to accelerate research and the translation of results into applied action, and so promote the conservation and sustainable use of biodiversity.

6.7.2.2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Through the establishment and coordination of appropriate structures, and the undertaking of a review of the status quo of research on biodiversity, develop a multidisciplinary national biodiversity research plan, based upon existing gaps in knowledge and identified conservation and management priorities;
2. Develop a functional framework for:
 - a. REMA and other agencies concerned with biodiversity on one hand and the universities, training institutions and research institutions on the other to collaborate in identifying research needs and priorities, analysis, dissemination and timely application of research results;
 - b. Drawing up a Research Plan and protocols for collaboration between REMA, RDB, Rwanda Natural Resources Authority, National Research Institute, the National University and other entities involved in research;
3. Identify areas where more scientific data and more probing assessments need to be incorporated, and ensure the best use of recent technological progress such as information technology for addressing the problems and developing innovative technology that can be used in resolving problems in these areas;
4. Provide and/or mobilize resources to support diverse areas of biological research in light of the fact that biodiversity management is interdisciplinary and scientific progress in one discipline is often propelled by advances in another.

6. 7.3 Biodiversity Surveys and Inventories

6. 7. 3.1 Policy Objective

To undertake regular surveys and assessments to understand the status and trends in biodiversity

Biological surveys and inventories are basic to understanding biodiversity. The Government is aware of the enormity of comprehensively inventorying the country's biodiversity, and of the significant resources required to undertake this task.

6. 7. 3. 2. Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Set up a “Natural Resource Baseline Assessment” Programme to undertake comprehensive inventories and monitoring systems to assist REMA and other agencies in developing a more accurate picture of the living things and processes at work; identify and map threatened and endangered species and their habitats, and formulate specific measures, for their recovery and protection;
2. Undertake ecological gap analysis and mapping as a means of identifying and monitoring ecosystems, habitats and species that require protection and enhance inventory efforts, giving priority to gaps in knowledge;
3. Undertake baseline surveys and assessments to determine the number, diversity and conservation status of biodiversity in and outside national parks;
4. Enhance coordination among government agencies, museums, universities, collection-based institutions, and other organizations and individuals involved with biological inventories;
5. Integrate all biosystematics’ disciplines in developing rapid, cost-effective and reliable biological inventory methods and technologies and a system of biodiversity indicators for national use in resource assessment and conservation planning and monitoring;
6. Build national capacity to conduct inventories by increasing the number and skill of professional taxonomists; and encouraging the development and training of community workers ("parataxonomists") to collect and identify specimens.

6.7.4. Monitoring and Evaluation

6.7.4.1 Policy Objective

To facilitate monitoring for sustainable biodiversity management

The conservation and management of biodiversity should include regular monitoring and evaluation of the effects of change. Monitoring and evaluation are essential components of this policy. GoR recognizes the need to develop and implement approaches to monitor components of biodiversity considered to require urgent conservation measures and those which offer the greatest potential for sustainable use.

6.7.4.2 Strategies and Activities to achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Promote and coordinate the development of international, national, regional and local monitoring programmes and strategies to assess biological trends and the impacts of human activities on biodiversity;
2. Report on biodiversity trends, as part of "State of Environment" reports;
3. Maintain and strengthen the capacities of institutions engaged in monitoring components of biodiversity, and improve coordination among such bodies and support efforts to build the capacity and draw on the knowledge of local communities and volunteers with respect to undertaking monitoring exercises;
4. Develop cost-effective tools that facilitate monitoring biodiversity and ecosystems (videography) and regional-scale (satellite image analysis);
5. Enact legislation to provide for integrated and coordinated biodiversity planning and provide for monitoring the conservation status of biodiversity;
6. Publish the national biodiversity framework providing for an integrated, coordinated and uniform approach to biodiversity management by organs of state in all spheres of government, non- governmental organizations, the private sector, local communities and other stakeholders.

6.7.5. Data, Information and Knowledge Management

6.7.5.1. Policy Objective

To ensure proper management and dissemination of biodiversity knowledge to support conservation decision making

A substantial amount of data and information that is necessary for the conservation of biodiversity and the sustainable use of biological resources exists in Rwanda. This is held by different agencies and is inaccessible to managers, researchers, decision-makers and the public. The situation is aggravated by the fact that many of the initiatives to collect data and information on biodiversity are uncoordinated. Government will take measures to redress this situation and to improve the accessibility of data and information for those who need it.

6.7.5.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, will:

1. Investigate and implement the development of a national biodiversity information network to enhance the collection, sharing, analysis and distribution of data and information required for the conservation and sustainable use of biodiversity;
2. Develop a National Biodiversity Information Management System (BIMS) and Database linked to regional and international databases and build capacity for managing it;
3. Collaborate with Albertine Rift Countries to develop a Regional Biodiversity Centre of Excellence in Biodiversity to play the lead role in the generation, dissemination and application of knowledge for large-scale planning and management of biodiversity;

4. Support ongoing efforts to establish national, regional and international mechanisms for the provision of objective, authoritative and peer-reviewed scientific knowledge on biodiversity;
5. Support the establishment or strengthening of local resource centres to make information on biodiversity more accessible, usable, and locally relevant;
6. Promote the integration of traditional knowledge and in particular previously ignored and/or undermined cultural knowledge and practices concerning the conservation and sustainable use of biodiversity into scientific research programmes and formal sector innovations.

6.7.6. Developing Capacity to Manage Biodiversity

6. 7.6.1. Policy objective

To enhance the capacity necessary to conserve and sustainably use Rwanda's biodiversity

A major constraint to the implementation of this policy is the dearth of trained Rwandans to carry out the tasks required, and a lack of clear career opportunities in biodiversity management. A certain cadre of natural scientists exists, but few researchers are exposed to the practical problems of management, or have the breadth of knowledge required to address biodiversity conservation problems.

Government is committed to human resource development and to providing training and developing skills required for biodiversity management. Training is recognized as important not only for those charged with managing the use of natural resources, but for senior decision-makers, industrialists, and local communities.

6. 7.6.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties, shall:

1. Encourage a review and reorientation of the curricula of existing training programmes concerning biodiversity conservation and human interactions with the natural environment, with particular emphasis on multidisciplinary approaches;
2. Support the development of short-term training courses in biodiversity management tailored to the needs of particular groups such as business, communities, teachers, resource managers, non-governmental organizations, and senior decision-makers;
3. Prevent the loss of skilled expertise from the field of biodiversity management, maintain existing skills and expertise, and improve the capacity of public servants, non-governmental organizations, and communities to conserve and sustainably use biodiversity, by providing attractive terms and conditions of service;
4. Provide incentives to attract qualified individuals to careers in biodiversity management by ensuring that biodiversity management offers a coherent career path, with specific emphasis on the training of people from disadvantaged communities;
5. Strengthen the capacity of Kitabi College of Conservation and Environmental Management as a national training institution for the provision of knowledge and skills in conservation;

6. Support existing institutions that provide training for biodiversity management, with specific emphasis on those institutions that have historically been denied opportunities.

6.8. Creating Conditions and Incentives that Support the Conservation and Sustainable Use of Biodiversity

The effective implementation of the biodiversity policy requires the creation of conditions and incentives that support the conservation and sustainable use of biodiversity. Rwanda's approach towards achieving this goal has two main components:

- Promoting and developing economic opportunities that are compatible with and which complement the conservation and sustainable use of biodiversity; and
- Creating and implementing incentives that support the conservation and sustainable use of biological diversity.

6.8.1. Creating and Sharing Benefits from Biodiversity

6.8.1.1. Policy Objective

To promote and develop economic opportunities that are compatible with and which complement the conservation and sustainable use of biodiversity.

Rwanda's biodiversity presently provides substantial economic benefits for its people, and holds remarkable future economic potential if adequate investments are made in its further development and conservation. Government policy will require that these resources are used to best effect in the alleviation of poverty and conservation of the country's biodiversity, and will enlist the support of the private sector, District Authorities, Local Communities and development partners, in doing so wherever this is appropriate.

Rwanda has a long way to go, in developing and benefitting fully from its biological diversity. To achieve this, there has to be greater commitment and establishment of an appropriate incentive system to support the development of domestic development of such resources.

6.8.1.2. Strategy and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Encourage the development of indigenous and traditional natural resource utilization programmes, natural product industries, and agricultural programmes which show economic potential and which create economic and other incentives for the retention, rehabilitation, maintenance and management of natural habitats;
2. Support research which identifies new areas of economic potential for Rwanda's indigenous and traditional biological and genetic resources;
3. Effectively implement its tourism policy and encourage the development of partnership tourism ventures between local communities, the private sector and conservation agencies;

4. Evaluate and quantify the local economic value derived from the use of biological resources by the informal sector in development;
5. Develop systems for valuing and marketing ecological services such as carbon sequestration and watershed functions;
6. Introduce measures to encourage local communities to add economic value to products harvested from the wild, or cultivated off site, whilst ensuring the sustainable use of such resources.

6.8.2. Incentives

6.8.2.1. Policy Objective

To create and implement incentives that support the conservation and sustainable use of biological diversity.

Conservation and sustainable use of biodiversity is increasingly turning towards the use of incentives as instruments and mechanisms to promote and support change. The pursuit of innovative approaches to prevent the further loss of biodiversity is required in Rwanda. While regulatory approaches are still necessary, they are insufficient mechanism to ensure biodiversity conservation. In conjunction with legislation, the use of incentives, are considered important mechanisms to be used for the conservation and sustainable use of biodiversity, and the promotion of new uses of biological resources.

In introducing new incentives, Government will give consideration to the need to remove any existing incentives that may discourage biodiversity conservation and the need to use an array of different instruments, based upon bioregional and social characteristics as well as the nature of the threat to biodiversity, to encourage biodiversity conservation in different areas.

6.8.2.2. Strategies and Activities to Achieve this Objective

The Government, in collaboration with interested and affected parties therefore, shall:

1. Identify and progressively remove incentives that encourage the loss of biodiversity and the unsustainable, inefficient, and inequitable use of biological resources, taking into consideration social, economic and environmental costs and benefits;
2. Maintain, adjust or develop new financial and other incentives that support the conservation and sustainable use of biodiversity, and stimulate local stewardship of nature conservation;
3. Investigate and institute innovative mechanisms to raise new finances for biodiversity conservation;
4. Develop measures that enhance the capacity of existing conservation agencies in both the public and private sector to receive, generate, invest and employ funds to promote their objectives, and to enter into contractual arrangements with private landowners;
5. Support the development of methods to determine the social, economic, and environmental values of biodiversity, and the application of such methods to support the conservation and sustainable use of biodiversity.

7. STAKEHOLDERS' VIEWS

The management and sustainable use of biodiversity is of great interest to many stakeholders. REMA, which is the institution mandated with biodiversity conservation, initiated a widely participatory process and has collaborated and consulted with key stakeholders in formulating this Policy. The participatory and consultative approach, involved a number of measures aimed at achieving the following objectives:

- a. Defining national biodiversity conservation goals and aspirations;
- b. Collecting and analyzing information necessary for making accurate and informed decisions about biodiversity conservation;
- c. Building consensus among stakeholders and thus establishing public confidence in the formulation process to enhance opportunities for implementation;
- d. Establishing synergies and areas of complementarity with other relevant sectoral policies to ensure consideration of cross-cutting issues; and
- e. Identifying relevant regional and international biodiversity policies and laws and incorporate them in the biodiversity policy.

The coordination of the formulation process was coordinated by REMA, while the technical aspects of the policy development were handled by an International Consultant.

The consultation process included a number of activities:

- a. Meetings with stakeholders around national parks and other biodiversity-rich areas;
- b. Consultations with relevant institutions and their senior managers including: REMA, MINIRENA, MINICOM, MINIJUST, Rwanda Development Board (RDB); Rwanda Agriculture Board (RAB), Rwanda Natural Resources Authority (RNRA) and Institut de Recherche Scientifique et Technologique (IRST) among others;
- c. Consultations with individuals with expert knowledge or insights in specific policy components;
- d. Consultations at the national level;
- e. Focused group meetings with specific experts or partner institutions; and
- f. Literature review and use of internet-based resources.

All stakeholders supported the proposal and urgent need to formulate a National Biodiversity Policy. The consultant compiled, collated, analysed and synthesized the information from all the sources and forms the body of this policy document. The Policy therefore takes into account the interests of the diverse stakeholders, in order to avoid conflict and ensure consistency with long-term conservation goals. The policy and legal framework establish mechanisms for regulating and coordinating the various players, interests and activities, in ways that would satisfy contemporary conservation needs and address present and future challenges.

8. IMPLEMENTATION PLAN

8.1. Objective:

To ensure the consistent, coherent and systematic implementation of the Biodiversity Policy

To ensure that this policy is systematically implemented, implementation policy shall be guided by a plan which shall be developed in a participatory process, involving both Government and non-government stakeholders. This policy lays a strong foundation for sustainable biodiversity management but needs amplification in an explicit Biodiversity Law. In pursuing a coordinated approach to the implementation of policy, planning, and management of biodiversity, four key issues shall be taken into consideration:

- Raising awareness of the importance and profile of biodiversity;
- Highlighting the linkage between environmental sustainability and aspects of human daily lives;
- The importance of partnerships, processes and mechanisms for coordinating the contributions of multiple stakeholders, disciplines and strategies;
- The possibility, with a supportive and appropriate regulatory framework and scientific evidence, of transforming the available biological richness into income generating products and services, while maintaining the critical balance between ecological conservation and ever expanding human demands.

This policy shall be implemented at two levels:

1. **Supervisory Level:** The supervisory role shall be performed by MINIRENA, the Ministry responsible for Environment and Natural Resources. MINIRENA will provide the overall policy guidance and supervision, and monitor how it is being implemented in relation to other national policies. This should be done with the advice and consultation of arms of government that are responsible for overall national policy, and other relevant sectors such as that manage or have impacts on components of biodiversity, such as wildlife management, agriculture, water among others;
2. **Technical Level:** REMA, the designated implementing agency for environment and biodiversity policies, will be responsible for technical operations and coordination with other agencies.

8.2. Strategies and activities to achieve the Objective

The Government shall:

1. Through REMA and MINIRENA, establish mechanisms for bringing together representatives of different sectors to cooperate to ensure effective coordination and sustainable biodiversity management;
2. Establish appropriate institutional and legal framework and provide adequate systems, financial, technical and human resources for implementation, monitoring and evaluation of impacts and outcomes of the objectives set out in the policy;

3. In advancing the implementation of this Policy, MINIRENA and REMA shall provide leadership, harmonization and coordination of the roles of various biodiversity stakeholders in and outside government.

8.3. Implementation Strategy

8.3.1. Objective:

To develop a strategy for implementing the biodiversity policy.

REMA in collaboration with other Government agencies, Private Sector and Civil Society, shall develop a strategy for implementing the biodiversity policy

8.3.2. Strategies and Activities to Achieve this Objective

GoR shall develop a Strategy for implementing this policy, which shall include:

- A Policy Implementation Plan developed in a participatory process, which shall include a Monitoring Plan that will be used to gauge overall progress towards effective and efficient management of biodiversity in Rwanda;
- Institute periodic review of plans and programmes as experience and more information is gained;
- Establish mechanisms for and support decentralised institutions at the district and community levels for effective participation of local communities, private companies, individual land-owners and other stakeholders in biodiversity planning, implementation and decision making;
- Mainstream youth and gender issues into biodiversity conservation and management policies and programmes.

8.4. Monitoring, Evaluation and Learning from the Policy Implementation Plan and Strategy

8.4.1. Objective:

To formulate a monitoring and evaluation plan for the implementation of the policy, to provide the basis for learning, reviewing and addressing ongoing changes and improve biodiversity planning and management.

8.4.2. Strategies and Activities to Achieve this Objective

The Government, through relevant Ministries and Agencies, shall:

1. Develop a detailed monitoring and evaluation plan to track progress in implementation, and document and apply lessons learned to enhance planning and implementation of policy and conservation programmes;
2. Monitor and evaluate at the implementation of the policy looking at the relevant institutions and ecosystem components and functions;
3. Collaborate with relevant national agencies and international partners to develop indicators for monitoring and reporting on trends in biodiversity.

9. FINANCIAL IMPLICATIONS

9.1. Objective:

To develop a strategy for sustainable funding to ensure adequate resources are mobilized and deployed for the sound management and sustainable use of Rwanda's biodiversity.

The Government budget is the single largest source of funding for protection and conservation of biodiversity. There is need for increased budgetary allocation to ensure that biodiversity inside and outside protected areas are sustainably managed. In addition, there is an urgent need to complement government funding by harnessing additional funding.

9.2. Strategies and activities to achieve this objective

The Government shall:

1. Provide increased funding for biodiversity conservation from various sources including the application of "The User Pays Principle" and through the annual budgetary allocations;
2. Promote participation of individuals, civil society and the private sector in environmental protection through fiscal incentives and voluntary/negotiated agreements pegged on performance indicators;
3. Provide leadership in developing and implementing a funding strategy and mechanisms for diversification of sources of funding;
4. Require REMA to prepare financial sustainability strategies and business plans identifying funding opportunities and mechanisms, ranging from market-based to internal funding systems and set priorities for specific biodiversity conservation programmes.

9.3. Immediate Financial Implications

The total GoR budget contribution for full implementation of this policy is RWF 19,757,500,000 over the five year period, 2011 – 2015. This amount is gross and does not exclude the funds already allocated in the MTEF budget for the same period. Of the total amount, RWF 5,242,000,000 shall be provided by GoR, with the balance of RWF 14,515,500,000 being provided by various donors, including NGOs.

A substantial amount of the budget estimates represents direct investment in biodiversity products and services, which means that they will be sourced from the private sector.

The policy and its implementation are therefore premised on close collaboration and substantial financial contribution from many stakeholders.

10. LEGAL IMPLICATIONS

Implementation of this policy requires the enactment of a strong and comprehensive legal framework to give legislative backing to, and enforce the policy.

The Organic Law No. 04/2005 provides the modalities of environmental protection and conservation in Rwanda. There is also a Ministerial Order (No. 160/11 of 21/10/2008) establishing the list of protected animal and plant species. There is however no coherent biodiversity law. In addition to enacting a Biodiversity Act, it is imperative that sectoral laws are reviewed, strengthened and harmonized with the environment and biodiversity policies in order to build the necessary synergies, reduce duplication and improve the impact of the overall policy and legal framework.

There shall therefore be need for:

- Strengthening of the role of the Central Government in policy formulation and regulation, and reduce its implementation roles;
- Devolution of substantial authority for resource management to local governments, and strengthen their capacity;
- Engagement of non-state actors - private sector and civil society - more intensely;
- Equipping of new institutions with adequate flexibility in decision making and use of financial resources while remaining adequately accountable to the public.

The Government shall translate the provisions of this policy into a law on biodiversity. The law shall:

1. Be formulated within the context of the Constitution, and other relevant laws, especially those relating to the environment, forestry, wildlife, land, agriculture and decentralization, to create harmony, elicit synergies and facilitate smooth wildlife management;
2. Domesticating international and regional conventions, protocols, norms and standards relevant to biodiversity;
3. Provide a legal basis for biodiversity planning and management;
4. Establish new institutional arrangements, and more clearly define the responsibilities and authority of various institutions;
5. Specify incentives for managing biodiversity and ecosystems; and
6. Provide for issuing of Regulations, Guidelines and Instructions for specific biodiversity management measures.

The costs implications for developing the legal instruments are incorporated in the budget estimates.

11. CONTRIBUTION OF THE PRIVATE SECTOR

Rwanda's sustainable development must be anchored on the best use of local resources. Biodiversity and ecological services it generates represent a formidable natural asset, which has a great potential to create business and opportunities for investment. This policy is based on the principle that "Conservation is every Citizen's Business". Consequently, where benefits can be generated without compromising the ecological integrity of the ecosystems, they will be shared equitably.

This Policy advances *new strategies, that link protecting biodiversity with human needs and harness the investment opportunities offered by biodiversity to generate economic benefits, which shall be equitably shared.*

To achieve the objective, the GoR shall therefore:

1. Stress and make a better case for the value and economic importance of the conservation and sustainable use of biodiversity;
2. Develop biodiversity-based investment and business opportunities, especially in developing environmental technologies, recycling technologies, new energy technologies and technologies that are more efficient in using and converting natural resources;
3. Support the development and promotion of Business and Biodiversity Initiatives and provide appropriate incentives to develop public-private partnerships in the conservation and sustainable use of biodiversity;
4. Collaborate with private sector associations and industries to facilitate processes and activities, provide policy and fiscal incentives for developing business models for marketing environmental services, or cleaner and more efficient technologies;
5. Promote Bio-prospecting and Access to Genetic Resources in Rwanda, which can contribute to biodiversity conservation through royalties and value addition.

12. HANDLING PLAN

This Policy, as a new initiative of GoR in a crucial area of national endeavours, requires a special handling plan, not only to create awareness of its existence, but also to inform and educate stakeholders on its key provisions and the opportunities it creates for their participation. The following measures are proposed for the dissemination of the policy as soon as it is approved by the Cabinet:

1. Plan a one-day seminar for public / private sector leaders and development partners;
2. Disseminate copies of the Biodiversity Policy document as widely as possible to relevant stakeholders.

ANNEX 1: IMPLEMENTATION PLAN AND BUDGET

Policy issue	Activity	Time-frame	Budget (RWF)			Institutional Responsibility
			From GoR	From Donors	Total	
Strategic Level to support Biodiversity Conservation	Harmonizing biodiversity conservation with Vision 2020 and the EDPRS	2012 - 2016	5,000,000	15,000,000	20,000,000	PM's Office, REMA, RDB, RNRA, Sectoral Ministries
	Create inter-sectoral Coordination.	2012 - 2016			0	PM's Office
	Enact Biodiversity Law	2011			0	MINIRENA, Cabinet, Parliament
	Support to Conservation orgs.	2012 - 2016	10,000,000	40,000,000	50,000,000	REMA, RDB, MINIRENA, MINECOFIN, Donors
	Sub-total		15,000,000	55,000,000	70,000,000	
Conserve the Diversity of Landscapes, Ecosystems, Habitats, Communities, Populations, and Species, and Genes in Rwanda	Control, eradicate and prevent introduction of harmful alien species;	2012 - 2016	15,000,000		15,000,000	REMA, RNRA, RDB
	Regulate transfer, use and release of GMOs	2013	2,500,000		2,500,000	REMA, Customs
	Develop and apply biological, social and economic criteria and indicators for conservation and sustainable use.	2012 - 2016	10,000,000	40,000,000	50,000,000	REMA, RNRA, RDB, Donors

	Set up a "National Resource Baseline Assessment" Programme to coordinate and /or undertake comprehensive biodiversity inventories	2012 - 2016	250,000,000	2,750,000,000	3,000,000,000	MINECOFIN, RNRA, MINIRENA, REMA, RDB, Donors
	Mitigating measures for adverse impacts on biodiversity and ecosystems	2012 - 2016	10,000,000	50,000,000	60,000,000	REMA, RNRA, RDB, Donors
	Sub-Total		287,500,000	2,840,000,000	3,127,500,000	
	Process for gathering, combining, interpreting and communicating knowledge	2012 - 2013	10,000,000	15,000,000	25,000,000	REMA, RNRA, RDB, Donors
National Biodiversity Planning	National biodiversity inventories and assessments and mapping	2012 - 2016	250,000,000	750,000,000	1,000,000,000	REMA, RNRA, RDB, Donors
	Ecological Gap Analysis to assess status of biodiversity,	2012 - 2016	50,000,000	150,000,000	200,000,000	REMA, RNRA, RDB, Donors
	National Conservation System Plan	2012 - 2016	100,000,000	250,000,000	350,000,000	REMA, RNRA, RDB, Donors
	Sub-Total		410,000,000	1,165,000,000	1,575,000,000	
Species Conservation	Detailed species management strategies and plans	2012 - 2013	15,000,000	35,000,000	50,000,000	REMA, RNRA, RDB, Donors

	for keystone and indicator spp.							
	Framework for identifying and listing endangered and threatened species.	2012 - 2013				0		
	Recovery plans for survival of endangered and threatened spp.	2012 - 2013	25,000,000	50,000,000	75,000,000		REMA, RNRA, RDB, Donors	
	Management of migratory and transboundary spp.	2012 - 2016	40,000,000	60,000,000	100,000,000		REMA, RNRA, RDB, Donors	
	Sub-Total		80,000,000	145,000,000	225,000,000			
	Comprehensive Action Plan to strengthen the PA system	2012	5,000,000	15,000,000	20,000,000		REMA, RNRA, RDB, Donors	
	Criteria and process for identifying new PAs	2012 - 2013	25,000,000	75,000,000	100,000,000		REMA, RNRA, RDB, Donors	
	Legal protection as to endangered or fragile ecosystems, such as wetlands, watersheds, lakes and river-banks.	2014 - 2015	50,000,000	150,000,000	200,000,000		REMA, RNRA, RDB, District Authorities, Donors	
	Conservation urban biodiversity through urban parks, corridors and greenways.	2012 - 2016	100,000,000	200,000,000	300,000,000		REMA, RNRA, RDB, Urban Councils, Donors	

Representative and effective system of protected areas.

	Sub-Total		180,000,000	440,000,000	620,000,000	
Rehabilitation of Degraded Ecosystems	Programme to rehabilitate degraded systems of national concern	2012 - 2016	250,000,000	750,000,000	1,000,000,000	REMA, RNRA, RDB, District Councils, Donors
	Strategies, plans and measures for the identification and restoration of degraded habitats and ecosystems	2013	15,000,000	35,000,000	50,000,000	REMA, RNRA, RDB, District Councils, Donors
	Site specific measures for rehabilitation and mitigating adverse impacts	2014- 2015	25,000,000	50,000,000	75,000,000	REMA, RNRA, RDB, District Councils, Donors
	Monitor genetic contamination and loss of genetic variability amongst populations.	2012 - 2016	50,000,000	150,000,000	200,000,000	REMA, RNRA, RDB, MOH, Donors
	Sub-Total		340,000,000	985,000,000	1,325,000,000	
Ex-Situ Conservation	Local and national gene banks and other facilities	2012 - 2016	400,000,000	600,000,000	1,000,000,000	REMA, RNRA, RDB, District Authorities, Donors
	Joint Stakeholder planning and priority setting.	2012 - 2016	150,000,000		150,000,000	REMA, RNRA, RDB, District Authorities
	Development and Coordination of a comprehensive national strategy for <i>ex-situ</i> conservation	2013	50,000,000	150,000,000	200,000,000	REMA, RNRA, RDB, District Authorities, Donors

	Use of ex situ for recovery and re-introduction of spp.	2013-2015	25,000,000		25,000,000		25,000,000	REMA, RNRA, RDB, District Authorities
	Build human and technical capacity for ex-situ conservation,	2012 - 2016	200,000,000	300,000,000	500,000,000		500,000,000	REMA, RNRA, RDB, Donors
	Sub-Total		825,000,000	1,050,000,000	1,875,000,000		1,875,000,000	
	System for managing data on agro-biodiversity	2013 - 2014	40,000,000	60,000,000	100,000,000		100,000,000	REMA, RNRA, RDB, Donors
	Integrate agro-biodiversity into sectoral biodiversity	2012 - 2016	50,000,000	100,000,000	150,000,000		150,000,000	REMA, RNRA, RDB, Donors
	Incorporate the International Treaty on Genetic Resources into national law.	2014	5,000,000		5,000,000		5,000,000	REMA, RNRA, RDB,
Conservation of Agro-biodiversity	Institutional, policy and legal guidelines and strategies for agro-biodiversity and agro-systems. Methods for cultivation of natural plants such as medicinals and fodder trees	2013 - 2014	15,000,000	35,000,000	50,000,000		50,000,000	REMA, RNRA, RDB, Donors
	Sub-Total		110,000,000	195,000,000	305,000,000		305,000,000	
	Develop, harmonize and implement a coordinated biosecurity system	2012 - 2016	25,000,000	75,000,000	100,000,000		100,000,000	REMA, RNRA, RDB, Donors
Controlling, Eradicating and Preventing Threats to								

Biodiversity	Domesticate international legal instruments such as the IPPC, OIE, CBD, Codex and WTO SPS Agreement.	2012 - 2013	10,000,000	15,000,000	25,000,000	REMA, RNRA, RDB, Donors
	Coordination of biosecurity issues in relevant orgs.	2012 - 2016	25,000,000		25,000,000	REMA, RNRA, RDB District Authorities
	Legal and institutional biosecurity regime bringing together plant health, animal health and food safety	2012 - 2016	25,000,000		25,000,000	REMA, RNRA, RDB,
	Sub-Total		85,000,000	90,000,000	175,000,000	
Alien and Invasive Species	Develop a strategy to control invasive species	2013	5,000,000	20,000,000	25,000,000	REMA, RNRA, RDB, Donors
	Streamline, strengthen and enforce existing legislation to control the introduction and spread of harmful alien organisms	2013 - 2014	15,000,000	45,000,000	60,000,000	REMA, RNRA, RDB, Donors
	Incorporate CITES and other legal instruments into national law	2014	7,500,000	7,500,000	15,000,000	REMA, RNRA, RDB, CITES, Donors

	Public awareness on the risks posed by alien species.	2012 - 2016	50,000,000	150,000,000	200,000,000	REMA, RNRA, RDB, Donors, NGOs, District Authorities
	Regional strategies on alien invasive spp.	2014 - 2015	20,000,000	30,000,000	50,000,000	REMA, RNRA, RDB, Donors
	Sub- Total		97,500,000	252,500,000	350,000,000	
	Framework for development and safe application of biotechnology	2013 - 2015	30,000,000	70,000,000	100,000,000	REMA, RNRA, RDB, Donors
	Strengthen legislation to regulate the transfer, handling, use and release of GMOs	2015 - 2016	15,000,000	45,000,000	60,000,000	REMA, RNRA, RDB, Donors
Genetically Modified Organisms	Public awareness on risks and benefits of biotechnology and GMOs.	2012 - 2016	35,000,000	65,000,000	100,000,000	REMA, RNRA, RDB, Donors, District Authorities, NGOs
	Develop capacity for risk assessment and management from transfer, handling, and use of GMOs.	2012 - 2016	35,000,000	65,000,000	100,000,000	REMA, RNRA, RDB, Donors, NGOs, District Authorities
	Sub-Total		130,000,000	280,000,000	410,000,000	
Sectoral and Cross-Sectoral Approaches	Mainstream biodiversity into all relevant sectors	2012- 2016	25,000,000	75,000,000	100,000,000	REMA, RNRA, RDB, Donors
	Develop sectoral and Cross sectoral plans	2012 - 2014	35,000,000	65,000,000	100,000,000	REMA, RNRA, RDB, Donors

	for biodiversity								
	Develop guidelines sectoral biodiversity planning	2013 - 2014	15,000,000	25,000,000	40,000,000	REMA, RNRA, RDB, Donors			
	SEAs and EIAs for policies and major programmes.	2012 - 2016	25,000,000	25,000,000	50,000,000	REMA, RNRA, RDB, Donors			
	Formulate Integrated Environmental Management (IEM) principles and appropriate environmental procedures in land planning controls	2012 - 2016	20,000,000	40,000,000	60,000,000	REMA, RNRA, RDB, Donors			
	Sub-Total		120,000,000	230,000,000	350,000,000				
Align BD policy with international and regional Conventions and Agreements	Develop coordination mechanisms for consistent implementation of multilateral regional environmental agreements	2012 - 2014	15,000,000	35,000,000	50,000,000	REMA, RNRA, RDB, Donors			
	Establish transboundary biodiversity conservation initiatives	2012 - 2016	25,000,000	25,000,000	50,000,000	REMA, RNRA, RDB, Donors			
	Regional coordination of MEA implementation	2012 - 2013	15,000,000	25,000,000	40,000,000	REMA, RNRA, RDB, Donors			

	Mainstream biodiversity into regional and sub-regional trade regimes	2012 - 2016	5,000,000	70,000,000	75,000,000	REMA, RNRA, RDB, Donors
	Sub-Total		60,000,000	155,000,000	215,000,000	
Partnerships and stakeholder involvement in sustainable biodiversity management	Identify and analysis of biodiversity stakeholders	2013-2014	15,000,000	45,000,000	60,000,000	REMA, RNRA, RDB, Donors, NGOs, District Authorities
	Partnerships and Stakeholders Participation Strategy to enhance biodiversity management.	2013	10,000,000	15,000,000	25,000,000	REMA, RNRA, RDB, Private Sector, NGOs
	Promote investments in biodiversity and initiatives programmes by providing appropriate fiscal and economic incentives.	2012 - 2016	15,000,000	85,000,000	100,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs District Authorities
Sustainable use of biodiversity	Mechanisms for resolving and managing conflicts over resources	2013 - 2014	15,000,000	35,000,000	50,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Sub-Total		55,000,000	180,000,000	235,000,000	
	Incentives, and for sustainable commercial use of biodiversity.	2013 -2014	25,000,000	75,000,000	100,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities

	Assessments and guidelines for determining sustainable harvesting and utilization levels for species	2012 - 2016	50,000,000	100,000,000	150,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Integrated land-use planning to incorporate biodiversity.	2012 - 2016	150,000,000	350,000,000	500,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities,
	Propagation and planting of indigenous crops and trees to build the local resource base and to improve living environments.	2012-2012	120,000,000	230,000,000	350,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Strengthen delivery of extension services and capacity for management of biodiversity.	2012 - 2016	150,000,000	350,000,000	500,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Sub-Total		495,000,000	1,105,000,000	1,600,000,000	

Conservation of Aquatic Wetland biodiversity	Develop appropriate legislation to secure the conservation of wetlands	2012 - 2014	20,000,000	35,000,000	55,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Formulation of management plans for wetlands and other aquatic systems	2015	15,000,000	25,000,000	40,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Effective monitoring of water quality and species	2012- 2016	10,000,000	15,000,000	25,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Guidelines for aquaculture developments.	2013 - 2014	15,000,000	55,000,000	70,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Identify and map critical watersheds and catchments and develop catchment-specific partnerships and joint management plans	2012 - 2016	25,000,000	100,000,000	125,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Sub-Total		85,000,000	230,000,000	315,000,000	

Equitable sharing of Benefits from Development and use of biodiversity and Genetic Resources	Develop and introduce legal and institutional frameworks to control and regulate access to Rwanda's genetic resources	2012 - 2014	15,000,000	65,000,000	80,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Detailed guidelines for biodiversity prospecting by domestic and foreign companies.	2012-2013	15,000,000	60,000,000	75,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	National Clearing House to administer all collections and exchanges of genetic resources	2012 - 2014	25,000,000	25,000,000	50,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Efficient permit system and fee structure for the collection of biological or genetic resource	2012 - 2013	15,000,000	15,000,000	30,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Guidelines for equitable sharing of benefits from commercial use of genetic resources and related traditional knowledge	2012 - 2013	10,000,000		10,000,000	REMA, RNRA, RDB, Private Sector, NGOs, District Authorities
	Sub-Total		80,000,000	165,000,000	245,000,000	

<p align="center">Build human and technical Capacity to Conserve Biodiversity, and manage its use</p>	Awareness and appreciation, of the value and importance of biodiversity	2012 - 2016	50,000,000	150,000,000	200,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Targeted awareness sensitization programmes for different target audiences.	2012 - 2016	50,000,000	200,000,000	250,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Public-Private-NGO Partnerships in capacity building	2012 - 2016	20,000,000	30,000,000	50,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
	Integrate biodiversity in national education programmes	2012 - 2016	75,000,000	225,000,000	300,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, MOE
	Production of awareness materials for different sectors	2012 - 2016	75,000,000	225,000,000	300,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities
Sub-Total			270,000,000	830,000,000	1,100,000,000	

Improving knowledge and understanding about Biodiversity	Undertake conservation knowledge needs assessment and identify gaps and priorities.	2013 - 2015	35,000,000	65,000,000	100,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Develop a multidisciplinary national biodiversity research plan	2013	12,000,000	18,000,000	30,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Support research to fill gaps in biodiversity knowledge	2012 - 2013	25,000,000	75,000,000	100,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Provide and/or mobilize resources to support diverse areas of multi-disciplinary biological research.	2012 - 2016	10,000,000	15,000,000	25,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Sub-Total		82,000,000	173,000,000	255,000,000	
Biodiversity and ecosystem Monitoring	Development of monitoring systems for e biodiversity, ecosystems and their management and sustainable use	2014 - 2015	25,000,000	45,000,000	70,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST

	Strategies to assess biodiversity and ecological trends and the impacts of human activities	2012 - 2016	25,000,000	35,000,000	60,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Develop capacity for monitoring in institutions engaged in managing components of biodiversity,	2012 - 2016	50,000,000	100,000,000	150,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Develop apply effective tools (videography and regional-scale (satellite image analysis) for monitoring	2012 - 2016	100,000,000	250,000,000	350,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Develop, publish and disseminate a "National Biodiversity Framework" integrated, coordinated and uniform approach to biodiversity management and monitoring	2012 - 2016	15,000,000	10,000,000	25,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Sub-Total		215,000,000	440,000,000	655,000,000	

Data, Information and Knowledge Management	Acquire the best available technology and develop innovative processes for its application in managing biodiversity data	2012 - 2016	175,000,000	325,000,000	500,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, NUR, IRST
	Develop a National Biodiversity Information System (BIMS) to enhance the collection, sharing, analysis and distribution of data	2012 - 2016	50,000,000	250,000,000	300,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, IRST, NUR
	Support establishment of Regional Centre of Excellence in Biodiversity	2012 - 2012	75,000,000	425,000,000	500,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, NUR, IRST
	Establishment or strengthening of local resource centres to make information on biodiversity more accessible, usable, and locally relevant.	2012 - 2016	125,000,000	275,000,000	400,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST, NUR
	Integration of traditional and cultural knowledge and practices	2012 -2016	75,000,000	125,000,000	200,000,000	
Sub-Total		500,000,000	1,400,000,000	1,900,000,000		

<p>Create Conditions and Incentives that Support the Conservation and Sustainable use of Biodiversity</p>	Promote and develop economic opportunities in biodiversity and sustainable use of biodiversity;	2012 - 2016	35,000,000	65,000,000	100,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Create and apply incentives to promote conservation and sustainable use of biodiversity	2012 - 2016	250,000,000	750,000,000	1,000,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Investment in natural product and service industries	2012 - 2016	250,000,000	750,000,000	1,000,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Research to identify new areas of economic potential for Rwanda's indigenous and traditional biological and genetic resources.	2012 - 2016	35,000,000	115,000,000	150,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Develop systems for valuing and marketing ecological services such as carbon sequestration and watershed functions.	2012 - 2016	125,000,000	375,000,000	500,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST

	Develop innovative PP Partnerships and mechanisms to promote investment in biodiversity-based business.	2012 - 2016	25,000,000	55,000,000	80,000,000	REMA, RNRA, RDB, Donors, Private Sector, NGOs, District Authorities, IRST
	Sub- Total		720,000,000	2,110,000,000	2,830,000,000	
	GRAND TOTALS		5,242,000,000	14,515,500,000	19,757,500,000	