

# REPUBLIC OF RWANDA



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## **THE NATIONAL BIOSAFETY FRAMEWORK FOR RWANDA**

**Final Draft**

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## **Acronyms**

BCH	: Biosafety Clearing House
CBD	: Convention on Biological Diversity
CPB	: Cartagena Protocol on Biosafety
DNA	: Deoxyribonucleic Acid
FFP	: Food, Feed and Processing
GEF	: Global Environment Facility
GMO	: Genetically Modified Organisms
IBC	: Institutional Biosafety Committees
IEC	: Information, Education and Communication
ISAR	: Institute of Scientific and Agronomic Research
KIST	: Kigali Institute of Science, Technology and Management
LMO	: Living Modified Organism
NBC	: National Biosafety Committee
NBF	: National Biosafety Framework
NCA	: National Competent Authority
NCC	: National Coordinating Committee
NGO	: Non-Governmental Organizations
MINICOM	: Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperative
MINITERE	: Ministry of Lands, Environment, Forestry, Water and Mines
PRIMATURE	: Office of the Prime Minister
MINEDUC	: Ministry of Education, Science, Technology and Research
REMA	: Rwanda Environment Management Authority
UNEP	: United Nations Environment Programme

## **CHAPTER ONE: BACKGROUND AND ITS CONTEXT**

### **Foreword**

Modern biotechnology, one of the most remarkable achievements of recent scientific and technological research, is increasingly being recognized all over the world, as a panacea to the current global challenges of food and biomedical needs. Despite the current global controversies surrounding the likely impacts of biotechnology on health, environment and economy, modern biotechnology applications, particularly the use of genetically modified organisms (GMOs), it promises numerous advantages, notably high yields and/ or productivity; new and high quality breeds, etc.

Rwanda faces a multiplicity of poverty, food insecurity and environmental problems, for which biotechnology applications could be one of the solutions. First, Rwanda is one of the most densely populated countries in Sub-Sahara Africa, with a population growth rate of about 2.9%, and faces severe land shortage and land degradation due, in part, to the fragile ecosystem and poor land management. Yet, more than 90% of the population depends on agriculture. With an average household landholding of about 0.5 acres, adoption of scientific technologies including modern biotechnology seems to be a realistic strategy for achieving sustainable food security and poverty eradication in Rwanda.

It is recognized that while many countries including those in the region have made considerable advances in modern biotechnology research and development, its applications are relatively new in Rwanda. Hence, the general level of knowledge about GMOs is still low. Modern biotechnology which allows a greater diversity of genes to be introduced into organisms and undertake useful manipulations in agricultural or biomedical applications, offers many potential benefits, that motivate Rwandans to take advantage of the developments already achieved by other countries. In this regard, modern information technology and existing regional and international cooperation arrangements are useful mechanisms to close the gaps in knowledge and skills in Rwanda.

The increasing global trade in which Rwanda is expected to actively participate, implies that a number of biotechnology products, many of which contain genetically modified organisms, will flow into and/ or through Rwanda. It is, therefore, inevitable that GMOs will interact with Rwanda's biophysical environment. Indeed, legitimate concerns are being raised among Rwandan consumers that the population and economy may suffer from the undesirable effects of biotechnology if appropriate measures are not taken to protect them.

The main focus therefore, should be to put in place appropriate mechanisms for protecting human health and environment, and to ensure that biotechnology is developed in a precautionary and judicious manner. Such mechanisms will include establishment of appropriate institutions to assess and mitigate risks associated with GMO applications taking into account social economic considerations.

The National Biosafety Framework (NBF) has been developed not only to fulfil the requirements of the Cartagena Protocol on Biosafety, but purposely to ensure that Rwanda intensifies safe applications of modern biotechnology and derives optimum benefits.

The challenge for all stakeholders, however, is to effectively operationalise the policy and legal provisions, help realize the objectives. And, this calls for the implementation of the

five-year programme that seeks to address the whole range of concerns relating to developing scientific, technical and institutional capacities, for the implementation of the biosafety measures proposed in the policy and legal framework.

**Minister of Lands, Environment,  
Forestry, Water and Mines  
MUGOREWERA Drocella**

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The National Coordinating Committee (NCC) oversaw the development of the National Biosafety Framework in Rwanda. The process would not have been accomplished without the personal commitment, dedication and self drive of the members, for which the Ministry is most grateful. In similar measure, the efforts and outstanding contributions of all stakeholders into the NBF development process is most gratefully acknowledged.

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Finally, the efforts of the entire Ministry staff to accomplish the NBF Mission cannot be overemphasized. In particular the Ministry would like to thank the National Project Coordinator, Mr. Joseph Rwabutogo for his efforts and commitment to the project.

**Minister of State in charge of  
Lands and Environment  
HAJABAKIGA Patricia**

## Executive Summary

This document presents the National Biosafety Framework for Rwanda, which has been developed. Rwanda's NBF has 3 main components viz:

- the *National Biosafety Policy*, which highlights how biotechnology fits in the national development framework, and the legal and administrative mechanisms required for biotechnology and biosafety development in Rwanda;
- the *National Biosafety Bill and the Guidelines* which operationalises the policy, and provides a regulatory regime for ensuring that biotechnology developments in the country are safe for human health, the environment and the economy;
- *Institutional Framework*, spelling out the responsibilities and mandates of stakeholder institutions, and the human resource requirements, for effective implementation of the policy and legal instruments, such as notifications and authorizations; risk assessment and management; enforcement and monitoring; biosafety information management; and public awareness.

The project for developing the NBF has been funded by the UNEP/ GEF, as part of the programme to support parties to the Convention on Biodiversity and the Cartagena Protocol on Biosafety to develop national capacities to comply with the provisions thereof. For Rwanda, the NBF has been effectively implemented from October 2003 to date.

The main objectives of Rwanda's National Biosafety Framework (NBF) are twofold: putting in place appropriate policy, regulatory and institutional mechanisms to assist the country to optimise the potential benefits from modern biotechnology; and ensuring that biotechnology activities are undertaken in a safe, participatory and transparent manner, to minimize and to the extent possible, prevent risks associated with modern biotechnology applications;

## Recent developments in Biotechnology

Biotechnology is not an entirely recent development, but an age old technology used in many countries including Rwanda. For instance, biotechnology has been used in agriculture, industry and medicine. Fermentation activities in the foods and drinks industry (brewing, confectionary, milk pasteurization, etc) and pharmaceutical industries are all biotechnology applications undertaken for many years.

Modern biotechnology, however, is based on new knowledge areas such as genomics and proteomics, where emphasis is on deep understanding of the roles and interactions of genes and genetic materials in biological systems. Modern biotechnology is, therefore, premised on creating new genes, and hence the functions of cells in living organisms. This explains the frequently used terms - living modified organisms (LMOs) also commonly called genetically modified organisms (GMOs).

Modern biotechnology takes advantages of recent technological advancements to isolate DNA strands from different genes and combine them to evolve certain traits.

There is optimism that if modern biotechnology is properly pursued, it could address the concerns of sustainable development especially through improving agricultural production;

health care products; and industrial development. For Rwanda, with numerous challenges for food security and agricultural transformation, modern biotechnology offers considerable advantages that would assist to reduce poverty i.e. improved plant and animal breeds; improve food security and nutrition and promote the sustainable use of natural resources. Rwanda has a rich biodiversity and could provide a feedstock of genes for the biotechnology industry.

### **Biotechnology Applications in Rwanda**

Rwanda has made modest but significant progress in modern biotechnology applications, particularly in the area of agriculture and animal husbandry (plant tissue culture, embryo transplant,) medicine and HIV/AIDS. It is perhaps in the area of HIV/AIDS diagnostics that modern biotechnology applications are being applied, in vaccine trials using recombinant DNA.

The modest progress being made, however, continues to be undermined by lack of there is no clear policy framework to guide biotechnology research and development, even though biotechnology potential to transform Rwanda's socioeconomic landscape and promote environmental sustainability, is visible. In addition, there is no national strategy for biotechnology, reflecting limited appreciation of the importance of biotechnology in the socioeconomic development of the country.

The development and application of modern biotechnology presents enormous challenges for Rwanda, where its applications are just evolving. There is very low human resource and infrastructure capacity, and to build this, will require substantial investments in training; infrastructure development; systems and procedures.

### **The National Biosafety Framework**

The NBF has been developed as a set of mechanisms to facilitate safe development and application of biotechnology but also to guide the integration of biotechnology into the GoR's development strategy that focuses on human development and intensive application of scientific technology.

#### **Administrative mechanisms:**

The main institutional modalities for the NBF are as follows:

- National Competent Authority (NCA): the National Biosafety Framework designates the Rwanda Environment Management Authority (REMA) as the National Competent Authority, to whom all GMO applications in Rwanda are addressed. The NCA houses the National Biosafety Committee and the Registrar.
- The Bill has provisions for regulation of import, transit, contained and confined use activities, or placement on the market a GMO.
- **Advance Informed Agreement** is required for GMO applications before entering the country. A permit system issued by the Registrar of the National Competent

Authority (*article 14, para I National Biosafety Bill*) is a requirement for undertaking such activities in Rwanda.

- **Exemptions:** the Bill (*Article 17*) empowers the NCA to exempt GMOs for contained use, intentional introduction into the environment and food, feed or processing, where it is determined that the GMO concerned does not pose a significant risk to human health and/ or the environment.
- **Information in the Biosafety Clearing House (BCH):** the Registrar shall avail to the BHC (through the Focal Point of the BCH), particulars of the GMOs that have been exempted.
- **Collaborating institutions:** the Biosafety Bill (*article 18*) requires all foreign applicants, with exception of transit GMOs, to have local collaborating institutions (research or academic), and their particulars included in the applications.
- **Emergency plans:** Article 21 of the Biosafety Bill requires the applicant to draw an emergency plan before any import, contained or confined use, transit, release or placing on the market a GMO in Rwanda.

### **Opportunities for implementing the NBF**

The NBF is being implemented at a time when the GoR is putting emphasis on promoting science and technology in all aspects of human development and economic sectors. It therefore, follows, that biotechnology and biosafety issues are likely to receive the required political will and support. What needs to be done is to exploit this situation to create an enabling policy environment for developing national capacity and investing in biotechnology applications and biosafety.

### **The future: Five - year action plan**

A Five-year action plan for the implementation of the NBF has been developed with 4 programme components as follows:

- Institutional set up;
- Institutional and human resources capacity building
- Public education and awareness raising and;
- Monitoring and evaluation.

## 1. Introduction

### 1.1 Background

The development of the National Biosafety framework (NBF) for Rwanda, which is the subject of this report, is in compliance with the provisions of the international protocols and conventions to which Rwanda is signatory relating to safeguarding human health and protection of the environment. The Government of Rwanda (GoR) ratified the Convention on Biological Diversity on the 18<sup>th</sup> March 1995; signed and ratified the Cartagena Protocol on Biosafety on 24<sup>th</sup> May 2000 and 29<sup>th</sup> December 2003 respectively. As a party to the convention and the protocol, therefore, the GoR has obligation to put in place appropriate policy, legal and institutional mechanisms to implement the provisions of these conventions and protocols.

The NBF has been developed with technical and financial support from the United Nations Environment Programme (UNEP)/ Global Environment Facility (GEF). UNEP, as the United Nations body responsible for environmental management has been providing technical, financial and coordination support to parties<sup>1</sup> to enable them implement the provisions of this protocol.

It is in this context that Rwanda obtained project funds and technical guidance from UNEP to develop the NBF. The purpose of this document is to give all stakeholders an overview on how the government of Rwanda is preparing to address issues relating to modern biotechnology.

The NBF for Rwanda was developed in three phases. The following country assessments were undertaken in phase one;

- i. Survey on the existing national legislations that may impact on the use of modern biotechnology,
- ii. Survey on the existing use of biotechnology, safe use, level of public awareness and relevant expertise within the country,
- iii. Survey on the existing national, bilateral and multilateral cooperative programmes in capacity building, R&D and application of modern biotechnology in the country
- iv. Survey on the existing national biosafety frameworks in the sub region countries as well as mechanisms for harmonization of risk assessment, risk management, mutual acceptance of data and data validation
- v. Survey on the extent and impact of release of GMOs and commercial products

#### ***Phase two was mainly drafting of;***

- vi. National Biotechnology and Biosafety Policy;
- vii. National Biosafety Bill;
- viii. Training of different groups to raise awareness amongst members of the public on associated benefits and perceived risks of modern biotechnology;
- ix. Designing the National Biosafety Database to link to the Biosafety Clearing House (BCH) of the Cartagena Protocol on Biosafety;
- x. National Biosafety Guidelines.

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<sup>1</sup> See; phase 1 country assessment reports.

***Phase three focused on;***

- xi. Preparing an implementation plan, from which a five year plan is prepared.

## **1.2 Objectives of the National Biosafety Framework for Rwanda**

A standard National Biosafety Framework (NBF) is a set of policy, legal, regulatory, administrative and technical instruments, that are developed to ensure an adequate level of protection in the field of safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account human health.

The NBF in Rwanda has been developed with the following strategic objectives:

- (i) Put in place appropriate policy, institutional and decision making mechanisms such that Rwanda can maximize the potential benefits of modern biotechnology while minimizing its perceived risks associated with it.
- (ii) Ensure that all modern biotechnology activities in Rwanda are carried out in a safe, participatory and transparent manner, to minimize and to the extent possible, prevent risks associated with modern biotechnology applications;

Rwanda's NBF consists of the following major components:

- (a) The national biosafety policy;
- (b) The national biosafety regulatory regime i.e. Biosafety Bill and Guidelines;
- (c) An institutional framework to operationalise the policy and regulatory instruments, including handling of notifications or authorizations; risk assessment and management; enforcement and monitoring; information management; public awareness, education and participation.

## **1.3 Recent Developments in Biotechnology**

### **1.3.1 Overview of Global Developments in Biotechnology Applications**

Biotechnology is not new. It has been used for many centuries in agriculture and manufacturing to produce food, chemicals, beverages and many other products that have been of benefit in many areas including nutrition and health care. Examples of the conventional technologies include fermentation such as in the production of rum from molasses or beer from malt and plant propagation and breeding (to create new hybrids that have improved yields).

However, modern biotechnology that emerged in the recent years is built on the new knowledge areas such as genomics and proteomics. This knowledge enables greater understanding of the role of genes and genetic materials in biological systems. In particular, it allows geneticists to move genetic material from one life form to another in a way that was not previously possible and more recently, to change the function of a single cell in an organism for example a stem cell to kidney cell.

The ability to transfer genetic material is itself not new, but present developments represents value addition. During the traditional plant breeding, genes were mixed randomly between parents that could themselves be of different species. However, inter-specific plant hybridization crossings would not be possible in nature, but instead required sophisticated tissue culture techniques. Plant breeders have, over the last decades, modified genes in agricultural and crop plant in order to obtain desired traits. Modern biotechnology has however, increased our understanding of living systems in a way that was previously inconceivable. We can now develop drugs to counteract the action of many pathogens.

Modern biotechnology in the context of new technologies using recombinant DNA, offers much to serve the pressing needs for sustainable development in agriculture, environment, health, industry and other sectors. Rwanda has a rich biodiversity with a rich endowment of genes and could provide a feedstock for the biotechnology industry. Modern biotechnology can also enhance agricultural productivity in Rwanda in a way that will reduce poverty, improve food security and nutrition and promote the sustainable use of natural resources. Nonetheless, such benefits require the Government of Rwanda to put in place appropriate mechanisms to minimize the perceived risks associated with modern biotechnology.

### 1.3.2 Biotechnology Applications in Rwanda

There is a limited but growing range of applications of conventional biotechnology in Rwanda, covering various sectors, i.e: agriculture, health, environment and industry. The range of scientific and commercial biotechnology applications embrace plant tissue culture and tissue multiplication, production of various multi-purpose plants, medicinal plant exploration and exploitation, brewing of beer, production of juice, yogurt, etc. Biotechnology is also used in diagnostics, production of bio-energy (biogas), ethanol, as well as industrial and municipal waste water treatment.

Rwanda has made modest but significant progress in modern biotechnology applications, particularly in the area of agriculture and animal husbandry (plant tissue culture, embryo transplant,) medicine and HIV/AIDS. *It is perhaps in the area of HIV/AIDS diagnostics that modern biotechnology applications are being applied, vaccine trials using recombinant DNA.*

The modest progress being made, however, continues to be undermined by lack of a clear policy framework to guide biotechnology research and development, even though biotechnology potential to transform Rwanda's socioeconomic landscape and promote environmental sustainability, is visible. In addition, there is no national strategy for biotechnology, reflecting limited appreciation of the importance of biotechnology in the socioeconomic development of the country.

The development and application of modern biotechnology presents enormous challenges for Rwanda, where its applications are just evolving. There is very low human resource and infrastructure capacity, and to build this, will require substantial investments in training; infrastructure development; systems and procedures, among others. Developing sustainable capacity will require political will at the highest level, to ensure that biotechnology is given priority within sectoral and national development strategies and budgets.

Against this backdrop, the NBF has been developed to put in place mechanisms to facilitate safe development and application of modern biotechnology but also to guide the integration of biotechnology into the GoR's development strategy that focuses on human development and intensive application of scientific technology.

Perhaps it should be emphasized that the recent policy shift towards promoting science and technology, as a part of the national development strategy constitutes a measure of political will which could be exploited to create an enabling policy environment for developing national capacity for modern biotechnology applications and biosafety.

## CHAPTER TWO: THE NATIONAL POLICY

### 2. The National Biosafety Framework

#### 2.1 Components of the NBF

As modern biotechnology applications increasingly take root in Rwanda, there are concerns for the safe transfer and use, as have also been echoed globally. For Rwanda, the major concerns relate to loss of its biological diversity which constitute its national heritage; as well as its effect on agricultural production from which 90% derive their livelihoods, mainly in small holder subsistence farms.

The National Biosafety Framework for Rwanda consists of: The National Biotechnology and Biosafety Policy; that spells out institutional, legal and administrative mechanisms in the biotechnology developments; The National Biosafety Guidelines, which operationalizes the policy and law; and the National Biosafety Bill set as the national regulatory regime.

##### 2.1.1 The National Biotechnology-Biosafety Policy

The National Biosafety Policy has been developed based on experiences and lessons learned on the developments in the sub-region countries, and the various policies, strategies and initiatives in Rwanda. The objectives of the policy are to:

- (a) Build and *strengthen national capacity* in biotechnology and biosafety through research and development such that in future Rwanda could be self reliant;
- (b) Put in place *a regulatory and institutional framework* for biotechnology development and its safe application;
- (c) Ensure public and environmental safety and ethics in biotechnological research, development and its application;
- (d) Determine *measures for risk assessment and management* for all biotechnological applications;
- (e) Develop *mechanisms for public awareness, education and participation* in the decision making processes in relation to the modern biotechnology practices in the country.

The strategic focus of the national biotechnology – biosafety policy for Rwanda embraces: human resource capacity, institutional arrangements, legal and regulatory regimes, infrastructure, research and development, funding mechanisms, ethical issues, public awareness, education and participation, linkages and partnerships, biodiversity conservation and utilization, biosafety risk assessment and management, standards, monitoring and evaluation, emergency responses, Intellectual Property Rights (IPR), labeling and traceability, technology transfer, and access to information.

The policy has been developed within the overall context of the Vision 2020, the National Investment Strategy, and the poverty reduction strategy (PRS) and sustainable environmental management policies, in which the GoR, among others, recognizes that adoption of appropriate agricultural technologies could be a panacea food insecurity and rural poverty. Given that more than 90% of Rwandans depend on the agriculture for their

livelihoods, and considering the complex problems of low agricultural productivity, shortage of land and severe environmental degradation, there is consensus even at the highest level of Government that modern biotechnology has a strong potential to play a crucial role.

### **2.1.2 The National Biosafety Guidelines**

In the framework of implementing the provisions of the Cartagena Protocol on Biosafety in the country, the biosafety guidelines have been developed to operationalise the policy and legal frameworks by way of facilitating actors involved in policy decision making, technical operations implementation and monitoring, as well as farmers. These guidelines are comprehensive in that they are intended to cover all GMO applications involving importation into and transit through Rwanda, for use as food, feed.

It is to be emphasized that these Biosafety guidelines have been formulated at a time when biotechnology activities are taking off in earnest. It is thus anticipated that these guidelines will be regularly reviewed to make them more effective in line with the anticipated future developments in biotechnology- biosafety in Rwanda. Appropriate mechanisms should be put in place to facilitate provision of suggestions for modifications and improvement from all agencies and individuals, especially those involved in field activities.

## **CHAPTER THREE: THE REGULATORY REGIME**

### **3. The National Biosafety Bill**

During the country assessment (*1<sup>st</sup> October 2003 to 30<sup>th</sup> March 2004*) on the existing domestic legislations align to biosafety in Rwanda, it was identified that not domestic legislation explicitly addresses biosafety issues in the country. Notably, **article 20 and 41** of the Organic Law determining the modalities for protection, conservation and promotion of environment in Rwanda were reviewed and **article 49** of the national constitution. Consequently, it became inevitable to draft a new law.

The National Biosafety Bill therefore is the main instrument of the legal and regulatory regime, and has been formulated on the basis of establishing a protection system (*protecting human health and environment*) from negative impacts of modern biotechnology products.

The Bill has the following major elements:

- institutional mechanisms (including organs, structures, functions and linkages) for the implementation of the Biosafety Bill;
- risk assessment and management;
- offences and penalties

#### **3.1 Institutional Frameworks**

##### **3.1.1 The National Competent Authority**

The National Biosafety Bill proposes Rwanda Environmental Management Authority (REMA) as the National Competent Authority - NCA (*Article 4 of the National Biosafety Bill*).

The NCA functions shall include to:

- (a) receive, respond or communicate decisions made by the National Biosafety Committee on GMO notifications and applications;
- (b) establish mechanisms for ensuring the appropriate handling, dissemination and storage of documents and data regarding applications, notifications; and
- (c) promote public awareness, education and involvement in the decision making process.

##### **3.1.2 The National Focal Point**

The National Biosafety Framework reaffirms the Ministry responsible for Environment as the national focal point for the CBD and CPB.

### 3.1.3 The National Biosafety Committee

The National Biosafety Bill (*article 6*) provides for the establishment of the National Biosafety Committee (NBC), which shall be housed within the National Competent Authority (NCA). The appointment of the members of the NBC is entrusted to the Cabinet.

As the policy advisory organ with responsibility for effective implementation of the national Biotechnology – biosafety policy, the NBC shall, among others:

- (i) identify scientific and technological research priorities that will enable the country to meet its national and international goals;
- (ii) coordinate, monitor and supervise all sectoral activities that involve modern biotechnology and biosafety issues;
- (iii) ensure the integration of safe application of biotechnology in the national development strategies, plans and policies in liaison with line ministries, as well harmonization of such plans and strategies;
- (iv) promote cooperation among Government Departments, Local Authorities, Private Sectors, Non-Governmental Organizations and other organizations for safe application of biotechnology;
- (v) promote cooperation and information exchange in biotechnology and biosafety with similar bodies in other countries and with international bodies concerned with safe application of biotechnology;
- (vi) provide guidance and advice on all aspects of risk assessment and management; evaluate or cause the evaluation of the risk assessment and consider the result of such evaluation in making recommendation for a decision on any GMO application;
- (vii) evaluate the information presented by applicants to the National Competent Authority (NCA) and in the Biosafety-Clearing-House and make appropriate recommendation to the NCA;
- (viii) review any decision regarding the GMO upon receipt of new scientific information and make necessary recommendations to the NCA;
- (ix) promote public awareness and education concerning biotechnology – biosafety in collaboration with the NCA, through various strategies and media; as well as ensure public participation in the decision making processes relating to GMO applications.

The NBC is multidisciplinary, cross-sectoral and includes representation of key Ministries, private sector, consumer groups and the civil society (*article 7 of the National Biosafety Bill*)

### 3.1.4 The Ad hoc Committees

The National Biosafety Bill provides for the establishment of *ad hoc committees* to assist the NBC in identifying, assessing, analyzing or reviewing information on GMO applications. The cabinet may in consultation with the National Competent Authority, from time to time appoint Ad hoc Committees depending on the nature of the GMO, to advise on the basis of expertise (*article 13 of the National Biosafety Bill*).

The Registrar shall propose the composition and set the terms of reference for the Ad hoc Committees in consultation with the NBC and be approved by the Cabinet.

### **3.1.5 The Biosafety Registrar.**

The Registrar is the technical person established within the National Competent Authority, appointed with the Public Service Commission and answerable to the NCA (*article 11 of the National Biosafety Bill*).

The functions of the Registrar on the other hand shall include to:

- (i) receive and screen for completeness, the GMO applications for submission to the NBC ;
- (ii) where an approval has been given, issue a permit required or prescribed by this Law;
- (iii) where he has ascertained or suspects on reasonable grounds that GMOs are being imported or locally produced or used contrary to the provisions of this Law or the conditions of an issued permit:
  - serve a notice upon any person by whom or on whose behalf GMOs are being imported into, produced or used within the country for removal of such GMOs to a place or facility and in a manner prescribed by the National Competent Authority, and
  - Authorize an inspector to destroy such GMO or cause it to be destroyed, subject to procedures and other provisions as set out in this Law or regulations made under this Law;
- (iv) amend or withdraw a permit issued under this Law;
- (v) furnish an inspector with a certificate of appointment;
- (vi) require the cessation of any genetic modification activity at facilities where the provisions of this Law or the conditions of a permit have not been or are not being complied with;
- (vii) ensure that appropriate measures are undertaken by all users at all times with a view to the protection of the environment from hazards;
- (viii) implement the decisions of the NBC in relation to public awareness, education and participation pursuant to this Law;
- (ix) serve as a Secretary to the NBC, organise and take Minutes of their meetings.

### **3.2 Regulations to be enacted pursuant to the National Biosafety Bill**

To operationalise the National Biosafety Bill, regulations shall be enacted with respect to the following:

- (a) Internal procedures for the operations of the NCA, NBC and attendant committees and organs;
- (b) Conduct of contained or confined use activities;
- (c) Guidelines and regulations regarding release into the environment
- (d) Documentation and other information requirements for the import, export and trans-boundary movement of GMOs;
- (e) Standards to which facilities or activities involving GMOs should conform;
- (f) Prescription of fees to cover administrative costs of handling notifications, applications and petitions; as well as time limits for taking action.

## **CHAPTER FOUR: ADMINISTRATION AND DECISION MAKING**

### **4. Administrative, decision making and appeals**

All GMO applications are addressed to the NCA in Rwanda. The NCA houses the NBC and the Registrar. The latter is the technical person who screens the applications in accordance with annex 1 of the National Biosafety Guidelines for Rwanda.

The National Biosafety Bill for Rwanda regulates import, transit, contained and confined use activities, or placement on the market a GMO. Such activities are subject to an Advance Informed Agreement prior to entering the country. A permit system issued by the Registrar of the National Competent Authority (*article 14, para I National Biosafety Bill*) is a requirement for undertaking such activities in Rwanda.

The National Biosafety Bill (*Article 17*) empowers the NCA to exempt GMOs for contained use, intentional introduction into the environment and food, feed or processing, where the NCA determines that it has sufficient information and experience to conclude that the GMO or activity do not pose a significant risk to the conservation and sustainable use of biological diversity, taking also into consideration risks to human health.

Pursuant to that, the Registrar shall avail to the Biosafety Clearing House (through the Biosafety Clearing House Focal Point), the particulars of the GMOs for which exemptions have been made (*article 17, para I of the National Biosafety Bill*).

With the exception of transit GMOs, all foreign applicants shall have local collaborating institutions (research or academic) within Rwanda, the details of which shall accompany their applications (*article 18, para ii of the National Biosafety Bill*).

An emergency plan shall be drawn by the applicant before any import, contained or confined use, transit, release or placing on the market a GMO in Rwanda (*article 21 of the National Biosafety Bill*).

The costs of evaluating the application or carrying out the risk assessment, as the case may be, shall be born by the applicant (*article 19 para v*). Pursuant to this article, fees payable shall be set in the regulations (*article 19, para vi of the National Biosafety Bill*).

#### **4.1 Application, Approvals and appeals for GMO Importation in Rwanda:**

##### **4.1.1 Contained and confined use:**

Contained/confined use relates to restricted application of GMOs e.g. in indoor experiments (greenhouses, laboratories, etc), where the conditions to the extent that GMO effects on human health or environment are limited.

The National Biosafety Bill (*Article 14*) stipulates that all applications for importation into, transit through Rwanda, of GMOs, to be on Advance Informed Agreement. All activities regarding contained or confined use or placement on the market, of GMOs, require the permission of the NCA, issued by the Registrar. The permission shall be given or denied on the basis of the information provided on the application, and any other information obtained

through risk assessments and other investigations. Regulations shall determine reasonable time frame in which decisions on the applications shall be made.

#### **4.1.2 Intentional Introduction into the Environment**

Intentional introduction into the environment includes applications such as field trials and commercial releases, where GMOs may be consumed by humans and animals or may get into contact with the environment. The National Biosafety Bill (*Article 15*) prohibits any person from importing a GMO for intentional introduction into the Environment without an Advance Informed Agreement, and a permit issued by the Registrar of the National Competent Authority.

Any person wishing to intentionally introduce a GMO into the environment is also obliged to, within the time prescribed by the regulations, submit an application in writing to the Competent Authority and notify the Biosafety-Clearing-House of such intention. The applicant is also required to provide detailed information regarding the activity (*detailed in Schedule I and II of the National Biosafety Bill*).

#### **4.1.3 Direct use as Food, Feed, or Processing**

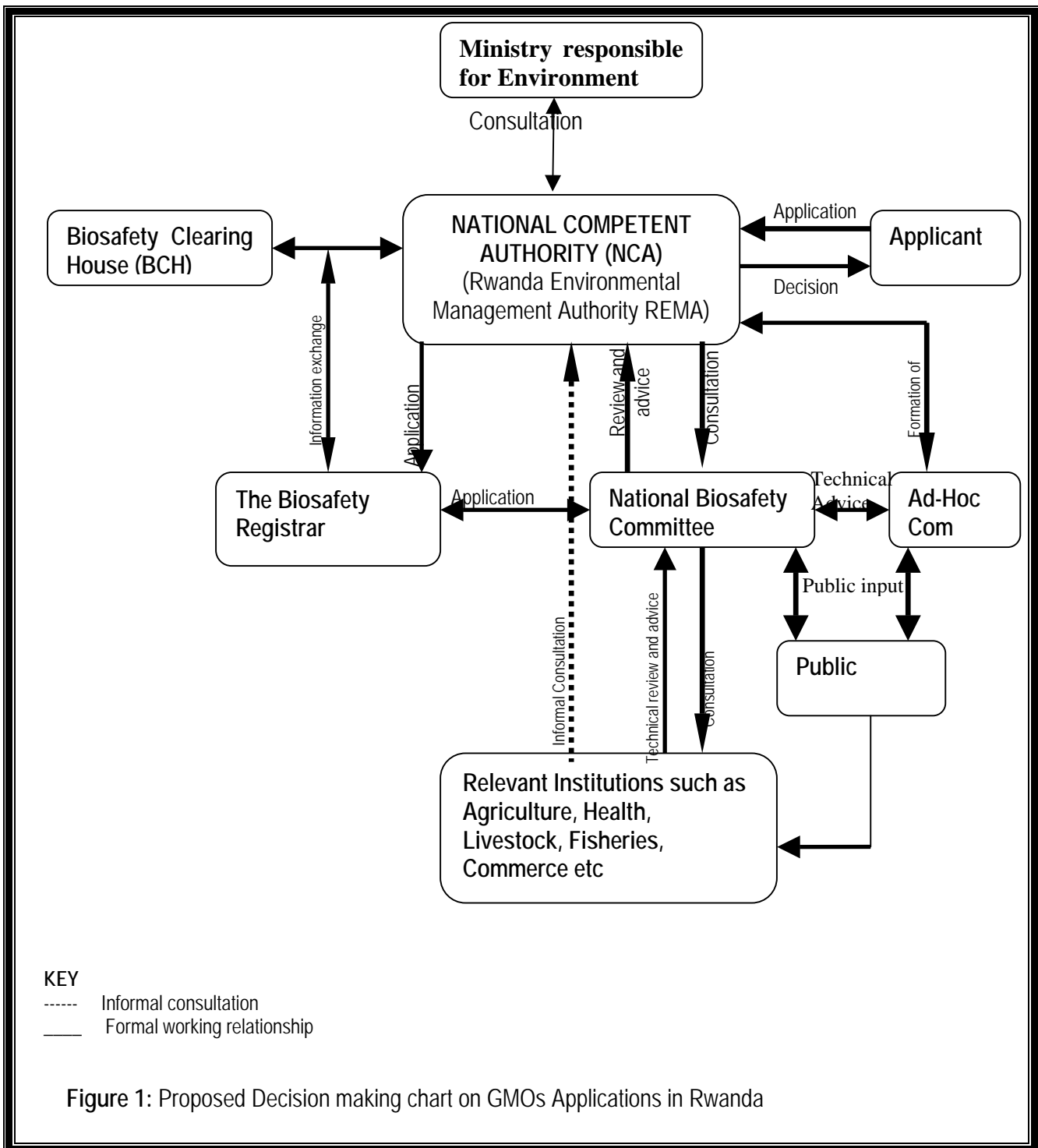
Any individual who intends to import GMOs intended for direct use as Food, Feed or Processing shall apply to the National Competent Authority and is bound to disclose relevant information as provided in the Schedule III of the National Biosafety Bill (*article 16*).

Lack of scientific certainty shall not deter the National Competent Authority from taking preventive measures (*article 21 viii of the National Biosafety Bill*).

#### **4.2 Export of GMOs from Rwanda**

Any person who intends to export GMOs from Rwanda shall provide the National Competent Authority with a written Advance Informed Agreement or permit of the National Competent Authority of the importing country. The exporter is also bound to adhere to other laws governing international trade (*article 31 of the National Biosafety Bill*).

### 4.3 The proposed decision making chart on GMO applications in Rwanda



The final decision regarding the GMO applications in Rwanda is made by the Head of the NCA and the decision is communicated to the applicant through the Registrar (*article 22 para ii of the National Biosafety Bill*). The Biosafety Clearing House shall be notified of such decision through the BCH Focal Point. Details of the procedural mechanisms are included in the National Biosafety Guidelines.

Any applicant aggrieved by the decision of NCA, has the right to appeal against such decision to the Cabinet (*article 24, para i*) which shall appoint Appeal Board (*article 24, para ii*). If the applicant is still unconvinced with the decision of the Appeal Board, is obliged to use suitable Courts of Law (*article 24, para vii of the National Biosafety Bill*).

#### **4.3.1 Biosafety Clearing House**

The applicant or the NCA shall inform the Biosafety Clearing House of any notification or decision regarding the GMOs (*article 18 of the National Biosafety Bill*). A National Biosafety Database has been designed for linkage with the Biosafety Clearing House.

In the event of any illegal transboundary movement, the National Competent Authority shall, in consultation with the relevant authorities in the country of origin, arrange for repatriation, destruction, or otherwise disposal, as appropriate, and all costs thereof shall be met by the importer.

The National Competent Authority shall make available to the Biosafety Clearing-House, all information concerning illegal transboundary movements including individuals convicted and offences and penalties imposed, except where provision of such information is deemed to prejudice ongoing investigations or Court proceedings (*article 35 of the National Biosafety Bill*).

#### **4.4 Risk Assessment**

Risk assessment shall be undertaken on a case-by-case basis and any approval shall specify the step-by-step sequences. Exemptions will be at the discretion of the NCA determines but relate to cases where there is reasonable ground to believe that the risks posed to the environment and human health are minimal (*article 19, article 22*).

The NCA shall not take any decision on any GMO applications without assessment of risks to the environment, biodiversity and human health, and this shall be undertaken in accordance with the Schedule II of the National Biosafety Bill (*article 19, para i*).

#### **4.5 Risk Management**

The GMO applications shall not be approved unless the NCA is convinced beyond reasonable doubt that such a GMO in question poses manageable risks. Applicants shall, in this case, be required to provide a plan with sufficient proof of how they would manage the risks identified. No approval shall be given for applications where there is reasonable indication that such GMOs pose unmanageable risks to the environment, biodiversity and human health (*article 22, para vi of the National Biosafety Bill*).

#### **4.6 Labeling**

The National Biosafety Bill requires all GMOs imported into Rwanda to be clearly labeled. Labeling shall be in at least one of the official languages used in Rwanda (English and/or French), and shall be clearly inscribed on the *packages* (*articles 28, 29 and 30 of the National Biosafety Bill*).

All GMO imports shall be accompanied by a Permit from the National Competent Authority and cleared as materials that contain GMOs.

#### **4.7 Liability and Remedies**

Any person who imports, transits, makes contained or confined use of, releases or places on the market a GMO, shall be strictly liable for any harm caused by such GMO and shall be bound to fully compensate all persons affected by such release, transit, use or placement on the market of the GMO in question (*article 34 of the National Biosafety Bill*).

## **CHAPTER FIVE: MONITORING**

### **5. Monitoring and Inspection**

Monitoring is the responsibility of the National Competent Authority as part of ensuring compliance with the permit issued, conservation of biological diversity and public safety. Applicants are required to submit reports periodically in respect of the monitoring and evaluation of risks carried out after approval of the import, contained or confined use, release or placing on the market of a GMO (*article 20, para h of the National Biosafety Bill*).

Applicants and research institutions are bound to perform monitoring as the case may be, in implementing measures imposed by the NCA, to avoid adverse effects on the environment, biological diversity, and human health and on the socio-economic conditions arising from a GMO (*article 20, para 1 of the National Biosafety Bill*).

Any approval to import, undertake contained or confined use, transit, release or placing in the market of a GMO shall require the applicant to carry out monitoring and evaluation of risks on a continuing basis for a period commensurate with the life cycle of the species, as determined by the National Competent Authority (*article 22, para v*).

#### **5.1 The Institutional Biosafety Committees**

The Bill provides for establishment of Institutional Biosafety Committees (IBC) in all biotechnology research and development institutions in Rwanda, mainly to undertake the following tasks:

- (a) Review and recommend to the NBC applications from Principal Investigators;
- (b) Facilitate the exchange of scientific, technical, environmental and legal information on and experience with GMOs;
- (c) Certify the safety of facilities, procedures and practices as well as the level of training and expertise of the personnel;
- (d) Review and monitor all biotechnology research conducted and sponsored by the institution to ensure compliance with established guidelines;
- (e) Maintain a list of PIs, project supervisors, approved by the IBC as competent to perform supervisory duties for particular projects;
- (f) Maintain records and files of each research project;
- (g) Investigate and report promptly to the NBC all accidents and unexplained absence due to illness;

#### **5.2 The Biosafety Officers**

The National Biosafety guidelines stipulate that the Biosafety Officers should be technical experts with expertise, experience in and familiarity with modern biotechnology techniques. The functions of the Biosafety Officer shall include;

- (a) Making checks and advise on Biosafety issues on a day-to-day basis;
- (b) Ensuring that biosafety is not compromised by any other considerations;
- (c) Serving as a member of the IBC;

- (d) Provision of a report, which should form part of the IBC's annual report to the NBC.

### **5.3 The Principal Investigator**

Ideally expected to be in each institution, Principal Investigators are required to be technically competent persons responsible for conducting biotechnology research. For each institution, the Principal Investigator shall report to the IBC, and his/ her main functions shall include:

- (a) ensuring that experiments, for which they are responsible are carried out in strict compliance with institutional and national guidelines, safety procedures and practices;
- (b) ensuring compliance with applicable shipping requirements regarding human, plant, and animal health protection policies, permit requirements and containment conditions for possession of certain organisms.

### **5.4 The Biosafety Inspectors**

To ensure compliance with the national biosafety bill, Biosafety Inspectors will be appointed (*article 32, para ii of the National Biosafety Bill*). The biosafety Inspectors shall be appointed by the NCA. In exercise of their routine duties during the working hours and without a warrant, Inspectors may;

- (a) Open any container found in or upon such place or facility and which the inspector believes on reasonable grounds to contain material of any GMO;
- (b) Examine the material of any GMO and take samples thereof;
- (c) Inspect any activity or process carried out in or upon the place or facility in connection with the GMO; and
- (d) Require the owner or occupier thereof to produce for inspection or for the purpose of obtaining copies or extracts from any book, label, or other document with respect to the administration of this Law.

Where there is reasonable ground to believe that a given facility or institutions is contravening the provisions of this, a warrant will be issued (*article 32, para iii and iv of the National Biosafety Bill*).

## **CHAPTER SIX: PUBLIC AWARENESS AND EDUCATION**

### **6. Public Awareness, Education and Participation.**

The Rwandan population have a right to information on biotechnology activities because any biosafety effects they are directly affected. The NBF has proposed a range of mechanisms in the policy, legal and regulatory framework, to promote public awareness, education, access to information (including BCH) and participation in the decision making process. *Article 4 of the National Biosafety Bill* explicitly mandates the NCA with the responsibility of promoting public education, awareness and participation.

#### **6.1 Public Awareness and Education**

The National Biosafety Bill stipulates a range of mechanisms for promoting public awareness and education:

- (a) through regular publications of information on any GMO, which has been granted or denied approval for import, transit, contained or confined use, release or placing on the market; and risk assessment report, by the Registrar (*article 25*);
- (b) disseminating information through electronic and other media; workshops, seminars; talk shows, etc, and in languages deemed appropriate to ensure access by all members of the Rwandan public, including the means for accessing the Biosafety Clearing House (*article 12, Article 25*).

#### **6.2 Public Participation in the Decision Making Processes**

The Registrar shall arrange for public consultation, through public hearings, written submissions, consultative meetings with various groups, etc., with regard to any import, transit, contained use or placing on market any GMO, and necessary steps shall be made to ensure that media with national coverage shall be used. Although the NCA shall have discretion on the final decisions, these must as much as possible reflect the expressions and concerns of the public (*article 26, para iii and iv of the National Biosafety Bill*).

#### **6.3 Public access to information**

The National Biosafety Guidelines provides mechanisms in which the public shall access information on biosafety issues, ranging from regular communiqués and announcements, internet systems for research institutions, promotion of access to BCH.

#### **6.4 Confidential Information**

The Registrar, the National Biosafety Committee members and the *Ad hoc Committee* members shall protect information determined by the National Competent Authority as being confidential, after a claim for confidentiality is made by the applicant. Information under Schedule I of the national biosafety bill shall under no circumstances be regarded as confidential (*article 27, para i of the National Biosafety Bill*).

The NCA may make any other information available to the public notwithstanding its confidentiality, if it believes that it is in the public interest to do so. Such a decision shall, however, be made in consultation with applicant.

## CHAPTER SEVEN: 5 – YEAR IMPLEMENTATION PLAN

### 7. Strategy and Action Plan for Implementation of the NBF

#### 7.1 The NBF Action Plan

To ensure that the NBF for Rwanda is fully implemented, a comprehensive Five -Year Plan has been designed with indicative cost estimates. The main focus of the Plan are: developing and strengthening the institutional frameworks; raising awareness of the population on GMOs; and putting in place an appropriate monitoring and evaluation system. These are reflected in the programme components (*see summary matrix below*).

The overall responsibility for the implementation of the plan is with the NCA and the NBC, but the implementation of the actual activities is the duty of the relevant institutions.

#### 7.2 The National Project Development Structure

The development of the NBF has been undertaken by the following bodies:

- (1) **National Executing Agency (NEA)**: Overall institutional structure i.e. the Ministry of Lands, Environment, Forestry, Water and Mines, under whose portfolio all environmental management issues fall. The responsible person is the Secretary General at the address prescribed in annex 1:
- (2) **National Coordinating Committee (NCC)**: this is the technical committee comprised of eminent professionals from different stakeholder institutions. The NCC was responsible for overall guidance of the NBF development process. The contact addresses of the NCC members are indicated in annex 1.
- (3) **National project Coordination Unit**: This served as the Secretariat of the NCC, undertaking all coordination and technical facilitation responsibilities. Mr. RWABUTOGO Joseph, the National Project Coordinator, headed the team.

With regard to the implementation of the Action Plan for the NBF, it is expected that the NCC will provide leadership during which period, the institutional structures will; be operationalised and considerable institutional capacity developed to enable the NBC take on the responsibilities for implementing the programme.

## SUMMARY OF THE LOGICAL FRAMEWORK FOR THE NBF IMPLEMENTATION (2006-2010)

**Overall Objective: To ensure that Rwanda utilises biotechnology as one of the tools for economic development and is fully Complying with provisions of the Cartagena Protocol on Biosafety.**

Programme Component:	Expected Results & Performance targets	Main Activities	Estimated Cost (USD)	Implementation period (years)				
				Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
<i>1. Institutional Framework in place.</i>	1.1. NBC Secretariat in place & operational	Recruitment of NBC Registrar, Focal Point person for Biosafety & Biosafety Clearing House (BCH);	220,000					
	1.2. NBC in place	Nomination & cabinet approval of NBC members; Orientation by NBC Secretariat						
	1.3. Stakeholders' roles, responsibilities and mandates clarified; functional linkages & coordination mechanisms elaborated	Documentation & clarification of stakeholders' responsibilities and expectations;						
	1.4 Biosafety Inspectors appointed & published in the official gazette.	Appointment of Biosafety Inspectors; Orientation workshops for Biosafety Inspectors						
	1.5 National Biotechnology Biosafety Resource Centre established under the co-management of NCA/MINITERE/MINICOM/ MINAGRI/ MINECOFIN & MINIJUST	Identify space to house the Resource Centre; Information Assistant designated to manage the Resource Centre; Requirements for the resource centre identified Workshop to officially launch the Resource Centre & mobilize stakeholders to contribute to and use the resource centre, organized.						
	1.6 Key stakeholders have the requisite financial resources to execute their mandate under the NBF.	Workshops for policy makers, Planners & technical staff at national & decentralized levels; - Funds to facilitate activities of Focal Points & Inspectors.						
<i>2. Institutional &amp; Human Resource Capacity Building for Stakeholder Institutions</i>	2.1. Comprehensive Biotechnology-biosafety Capacity Building Strategy & Action Plan developed and approved by the end of Yr 1.	- Consultancy for Biotechnology – Biosafety Capacity building Needs Assessment (CBNA); - Stakeholders' workshop to discuss priorities for capacity building in biosafety; - Capacity building implementation modalities (standard benchmarks & content)	780,000					
	2.2 REMA has the capacity and resources to effectively execute the functions of the NCA.	- Training programme for NCA staff developed & training conducted; - Study visits organized to 3 countries in the Eastern Africa region to learn from their experiences.						

Programme Component:	Expected Results & Performance targets	Main Activities	Estimated Cost (USD)	Implementation period (years)				
				Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
	2.5 Two National Biotechnology Laboratories established and fully equipped with modern biotechnology equipment & facilities for advanced research, testing & certification services by the end of Yr 3.	<ul style="list-style-type: none"> <li>- Biosafety training needs in public sector agencies (MDAs) and private sector federations/ associations identified.</li> <li>- Training programme for short courses in Biosafety research, development &amp; management issues prepared.</li> <li>- Beneficiary institutions for the national biotech labs identified and their facilities assessed</li> <li>- Memoranda of Understanding developed &amp; signed with heads of the 2 selected institutions, modalities for managing the Labs agreed upon</li> <li>- Laboratory Equipment<sup>2</sup> procured &amp; installed, following International/ national tendering procedures.</li> <li>- Meetings organized to commission National Biotechnology-biosafety laboratories.</li> </ul>						
	2.7 Biosafety Risk Assessment manuals, guidelines & other instruments developed & distributed to all relevant stakeholders by the 2 <sup>nd</sup> quarter of year 2.	<ul style="list-style-type: none"> <li>- Assessment Manuals &amp; guides developed;</li> <li>- Consultant hired (or technical team constituted) to prepare Manuals &amp; guides</li> <li>- Manuals translated into all 3 official languages</li> <li>- Manuals distributed to all key stakeholders</li> <li>- National workshop(s) organized on the application of the Biosafety Risk Assessment Manuals &amp; guides.</li> </ul>						
	2.7 NUR, KIST, KHI & ISAE provided with biotechnology equipment & facilities by the end of Yr 3.	<ul style="list-style-type: none"> <li>- The biotechnology –biosafety laboratory needs in the beneficiary institutions identified.</li> <li>- Biotech equipment Suppliers identified</li> <li>- Users/ operators trained</li> <li>- Operation &amp; maintenance strategy developed</li> <li>- Laboratory equipment procure &amp; Installed</li> </ul>						
	2.8 A comprehensive Information System to facilitate collection, storage, processing & sharing of data/ information on biotechnology- biosafety issues, developed & Operationalised at the National Biotechnology- Biosafety Resource Centre within year 2.	Installation of computer & information systems; training of operators						
<b>3.Education and Awareness Raising on Biotechnology –</b>	3.1 Biotechnology-Biosafety Policy, Law & Regulations simplified into popular versions and translated.	Consultant to simplify & translate the legal & policy documents into local languages.	205,000					

<sup>2</sup> This is based on the assumption that the labs will be established in existing premises. The NBC could indicate availability of premises as part of the criteria for eligibility. ISAR- stations at Rubirizi and Butare may be suitable choices.

Programme Component:	Expected Results & Performance targets	Main Activities	Estimated Cost (USD)	Implementation period (years)				
				Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
<i>Biosafety issues</i>	3.2 Appropriate & Sustainable Information, Education and Communication (IEC) strategy & plan for awareness raising developed.	Procurement of services for developing an IEC strategy/ plan, and materials; documentation & translations of documents; Printing services procured for IEC materials (brochures, fliers, posters, etc)						
	3.4 IEC materials distributed & audio-visual IEC messages disseminated	IEC materials distributed to all stakeholders and in strategic places (for posters); biosafety messages broadcast on radio and TV; awareness raising & sensitization workshops organized for policy makers & technical personnel in ministries/ agencies & private sector organizations; sensitization workshops/ meetings organized for farmers' groups, local leaders & local CSOs.						
	3.5 Biosafety News Bulletin published and circulated quarterly	Recruitment of Bulletin Editor; procurement of computers; Budget for Bulletin Publication.						
<b>4. A Comprehensive Monitoring and Evaluation (M&amp;E) System in place and Biosafety activities monitored</b>	4.1 Comprehensive M&E Strategy, Action Plan & Guidelines developed by the third quarter of year 1	1. ToR for the M&E activities; M&E Strategy, Action plan & Guidelines discussed & agreed upon; Consultants hired to develop the M&E Strategy, Action plan & Guidelines hired.	245,000					
	4.2 M&E tools & instruments developed, discussed and agreed upon by the NBC & other stakeholders	- M&E tools & instruments drafted based on the planned / ongoing activities & experiences from other countries in the region. - Tools & instruments pre-tested and final M&E tools & instruments developed and circulated among relevant stakeholders.						
	4.3 All Biotechnology Activities in Rwanda monitored & evaluated for biosafety issues.	- Internal progress reviews held by Sectoral / institutional actors & reports submitted to the NBC Secretariat on regular basis. - Field missions organised to assess progress; mid term review conducted						
	4.4 Successes & Challenges documented; strategy & action plan for future Biotech-biosafety activities elaborated	- Documentation of success stories & lessons; stakeholders' workshops to discuss the way forward & identify priority issues for new strategy & future actions; New Strategy & Action Plan.						
Total			1,450,000					

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1. The *Constitution of Republic of Rwanda* of 4<sup>th</sup> June 2003, as amended to date especially in its articles 29, 30, 49, 62, 88, 90, 93, 108, 118, 190, 191 and 201;
2. The Organic law N° 04/2005 of 08/04/2005 determining modalities for *Environment Management, Conservation and Protection in Rwanda*;
3. The Law N° .....of .....Establishing *Rwanda Environment Management Authority - REMA*
4. The Law N° 03/2002 of 19<sup>th</sup> January 2002 *Establishing Rwanda Bureau of Standards*.
5. The Law N° 14/2003 of 23 May 2003 on *Production, Quality Control and Commercialization of plant quality seeds*;
6. The statutory order of 26 April 1974 on the Confirmation and Modification of the Edict of 18 June 1973 on the Creation of the Rwandan Office for Tourism and National Parks (ORTPN);
7. The *Convention on the Biological Diversity* signed on 5<sup>th</sup> June 1992 at RIO DE JANEIRO, BRAZIL, as ratified by the Presidential Decree N° 017/01 of 18<sup>th</sup> March 1995;
8. The United Nations *Framework Convention on Climate Change* signed on 5<sup>th</sup> June 1992 at RIO DE JANEIRO, BRAZIL, as ratified by the Presidential Decree N° 021/01 of 30<sup>th</sup>, May 1995;
9. The Stockholm *Convention on Persistent Organic Pollutants* signed at STOCKHOLM on 22<sup>nd</sup> May 2001 as ratified by the Presidential Decree N° 78/01 of 8<sup>th</sup> July 2002;
10. The ROTTERDAM Convention *for Prior Informed Consent procedure for certain hazardous chemicals and pesticides in international trade* opened for signature at Rotterdam on 11<sup>th</sup> September 1998 and at New York on 12<sup>th</sup> November 1999 as ratified by the Presidential Decree N° 28/01 of 24<sup>th</sup> August 2003;
11. The Basel *Convention on the Illegal Transboundary Movement of the Hazardous Wastes and their disposal* adopted at Basel on 22<sup>nd</sup> March 1989 as ratified by the Presidential Decree N° 29/01 of 24<sup>th</sup> July 2003;
12. The amendments of the MONTREAL *Protocol on the substances that deplete the Ozone Layer* that were adopted in London (1990), Copenhagen (1992), Montreal (1997) and Beijing (1999) especially in its article 2 of the London Amendments and article 3 of Copenhagen, Montreal and Beijing as ratified by the Presidential Decree 30/01 of 24<sup>th</sup> August 2003;
13. The *CARTAGENA Protocol on Biosafety* to the Convention on the Biological Diversity opened for signature at Nairobi from 15 to 26 May 2000 and at New York from

5 June 2000 to 4 June 2001 as ratified by the Presidential Decree N° 38/2003 of 29/12/2003;

14. The ***KYOTO Protocol*** to the Framework Convention on Climate Change adopted at Kyoto on 6<sup>th</sup> March 1998 as ratified by the Presidential Decree N° 36/2003 of 29/12/2003;

15. The RAMSAR Convention of 2<sup>nd</sup> February 1971 on ***Wetlands of International Importance especially as Waterfowl habitats*** as ratified by the Presidential Decree N° 37/2003 of 29/12/2003;

16. The BONN ***Convention on the Conservation of Migratory Species of Wild Animals***, adopted at Bonn on 23rd June 1979 as ratified by the Presidential Decree N° 35/2003 of 29/12/2003;

17. The WASHINGTON ***Convention on International trade in endangered species of wild fauna and flora***, adopted at Washington on 3<sup>rd</sup> March 1973 as ratified by the Presidential Decree n° 211 of 25<sup>th</sup> June 1980.

18. Government of Rwanda/ Ministry of Finance and Economic Planning, 2001. National Poverty Reduction Strategy Paper. December 2001.

## Annex 1: The National Coordinating Committee (NCC) Members

N <sup>o</sup>	Names	Institution	Email address
1	Mrs. UWIMANA Suzanne C/Man of the NCC	Ministry of Lands, Environment, Forestry, Water and Mines	<a href="mailto:uwisuz@yahoo.fr">uwisuz@yahoo.fr</a>
2	Mr. Cassien BYAMUSHANA Vice C/Man	Institute Science and Agronomic Research (ISAR)	<a href="mailto:byamushanacass@yahoo.fr">byamushanacass@yahoo.fr</a>
3	Mr. Remy MUGUNGA	Office of the President	<a href="mailto:rmugunga@gov.rw">rmugunga@gov.rw</a>
4	Mr. F MUNYANEZA	Office of the Prime Minister	<a href="mailto:munyanezafr@yahoo.fr">munyanezafr@yahoo.fr</a>
5	Mr. Grey GATERA	Ministry of Justice	<a href="mailto:gateragray@yahoo.fr">gateragray@yahoo.fr</a>
6	Dr. Vianney MUHINDA	Ministry of Agriculture and Animal Resources	<a href="mailto:mottovia@caramail.com">mottovia@caramail.com</a>
7	Mr. Elisé NDAMYIMANA	Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives	<a href="mailto:Elindamy@yahoo.fr">Elindamy@yahoo.fr</a> <a href="mailto:tourirwanda@yahoo.co.uk">tourirwanda@yahoo.co.uk</a>
8	Mr. Joseph RWABUTOGO	Ministry of Lands, Environment, Forestry, Water and Mines	<a href="mailto:jrwabu@yahoo.com">jrwabu@yahoo.com</a>
9	Mr. Maurice TWAHIRWA	Ministry of Health	<a href="mailto:twahimoris@hotmail.com">twahimoris@hotmail.com</a>
10	Dr. Rose MUKANKOMEJE	Rwanda Environmental Management Authority (REMA)	<a href="mailto:rmukankomeje@yahoo.com">rmukankomeje@yahoo.com</a>
11	Mr. Albert MUTESA	Ministry of Education, Science, Technology and Research	<a href="mailto:amutesa@mineduc.gov.rw">amutesa@mineduc.gov.rw</a>
12	Ms. Aimée MPAMBARA	National University of Rwanda	<a href="mailto:ampambara@yahoo.fr">ampambara@yahoo.fr</a>
13	Mr. Alexis KABUTO	Kigali Institute of Science, Technology & Management (KIST)	<a href="mailto:akabuto@yahoo.fr">akabuto@yahoo.fr</a>
14	Mr. Emile RUTENBESA	Rwanda Bureau of Standards	<a href="mailto:Rge815@hotmail.com">Rge815@hotmail.com</a>
15	Mr. Laurent GASHUGI	FAO/Rwanda	<a href="mailto:laurent.gashugi@fao.org">laurent.gashugi@fao.org</a>
16	Mr. Ampofo KWASI	USAID/ Rwanda	<a href="mailto:k.ampofo@cgiar.org">k.ampofo@cgiar.org</a>

### CONTACTS OF THE NBF KEY IMPLEMENTING AGENCIES

#### 1. The National Executing Agency

Ministry of Lands, Environment, Forestry, Water and Mines  
Secretary General,  
P.O Box 3502 Kigali  
Tel: (250) 582628  
Fax: (250) 582629  
E-mail: [minitere@rwanda1.com](mailto:minitere@rwanda1.com) or [nbf@minitere.gov.rw](mailto:nbf@minitere.gov.rw)

#### 2. National Coordinating Committee (NCC) Secretariat

National Project Coordinator,  
Mr. Joseph Rwabutogo,  
P.O Box 3502 Kigali  
Tel. (250) 517561  
Fax (250) 582629  
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3. The National Competent Authority

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