

# REPUBLIC OF RWANDA



## MINISTRY OF FORESTRY AND MINES

NATIONAL FORESTRY AUTHORITY (NAFA)

### Strategic Plan for the Forest Sector

**2009 – 2012**

**Kigali, June 2010**

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## 1. Overview of the Forestry Sector in Rwanda

### 1.1 Definitions

A forest can be defined in various ways depending upon socio-economic, geographic and ecological contexts. Variations in definitions of a forest are mostly based on understanding of what is a tree in terms of size and longevity, the minimum tree crown cover percentage and the minimum size of the area of trees growing together. However for the sake of this strategic plan, the definition by FAO (2000) has been adopted: *a **forest** is an ecosystem dominated by **trees** (defined as perennial woody plants taller than 5 meters at maturity), where the tree crown cover (or equivalent stocking level) exceeds 10% of the ground surface and the area is larger than 0.5ha.*

Although, in the Rwandan context, woodlots as small as 0.01 ha are often also considered as forests by smallholders, small forests (woodlots less than 0.5 ha) and individual trees integrated with crop and animal production systems are considered as **agroforestry**. ICRAF (1993) defined agroforestry as *“a collective name for land-use systems and technologies, where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land management unit as agricultural crops and/or animals, either in some form of spatial arrangement or temporal sequence”*. In agroforestry systems there are both ecological and economical interactions between the different components. It is important to view agroforestry as both an approach to land use and a set of integrated land use practices.

**Forestry** will be referred to as *“a collective name for the whole system of tree planting, silviculture, tree cutting and extraction, processing and marketing of forest products, supported by activities of research aimed at improving one or the other component of the system”*.

**Forestry** is the provider of multiple tangible and intangible goods and services. However, they can be grouped into the three following categories:

- a) **Timber products**, such as fuel wood, timber, pulp wood, bamboo material, etc.
- b) **Non-timber products** such as essential oils, tannins, resins, gums, drugs, spices, tannins, resins, gums, drugs, insecticides, soap substitutes, dyes, cork, honey etc.
- c) **Services**, such as biodiversity conservation, carbon sequestration and oxygen supply replenishment, micro-climate modification, soil fertility improvement, soil conservation, recreational (aesthetic) value and provision of employment in forestry and related activities like tree planting, forest management, charcoal making, wood sawing, wood working, carpentry, etc.

### 1.2 Institutional overview

The National Forestry Authority (NAFA) has the responsibility of coordinating the forest management and agroforestry development in Rwanda. The law n° 17/2008 of 20/06/2008 which established NAFA determines its organization, functioning and responsibilities. Article 6 of this law stipulates that NAFA is supervised by the Ministry in charge of forests (Currently the Ministry of Forestry and Mines (MINIFOM)). Accordingly, the NAFA signs a performance contract with the Ministry. This contract defines the powers, rights and

responsibilities of each party in fulfilling the responsibilities of NAFA (Articles 6 and 7). Table 1 presents the 12 missions assigned to NAFA (Article 3 of the Law) which are comprised in the three specific objectives of the Forestry Sector Strategy.

**Table 1: NAFA responsibilities and specific objectives of the Forestry Sector Strategy**

No	Responsibilities	Specific Objectives
1°	Participate in designing the forestry policies and strategies as well as promotion of agroforestry and to ensure their implementation	To provide institutional support to forestry actors
2°	Advise the Government on policies, strategies and legislation related to forest management as well as to the implementation of international conventions related to forestry and protection of natural resources such as land, water and forest biodiversity in forest areas	To provide institutional support to forestry actors / To manage forest resources
3°	Support organs that are in charge of fighting soil erosion with the aim of safeguarding forestry and environment	To provide institutional support to forestry actors
4°	Prepare national programs in matters of reforestation and forest management; help Districts to prepare their own forest management and supervise the implementation of such programs	Cross-sector
5°	Advise, assist and encourage private sector stakeholders in participating in activities of reforestation, their effective management and to make them productive	To provide institutional support to forestry actors
6°	Make and update the list of tree species to be planted in the country and their respective suitable areas according to the type of soil and the expected usage of such trees and provide advice and instructions with regard to tree species or forest products to be imported or exported	To provide institutional support to forestry actors / To increase forest and agroforestry area
7°	Ensure the management and exploitation of public forest resources	To manage the forest resources
8°	Undertake research, investigations, studies and other relevant activities with regard to the importance of forestry in the national economy and to the utilization of forest products and dissemination of research findings	To provide institutional support to forestry actors
9°	Disseminate research findings on technology of planting trees on farmlands, grazing lands and reforestation areas; efficient management and utilization of such resource to income generation, rational utilization of forests and related products	To provide institutional support to forestry actors / To manage forest resources
10°	Prepare technical norms for activities related to reforestation, protection and rational utilization of forests as well as adding value to forest products	To manage forest resources/ To increase forest and agroforestry area
11°	Evaluate and closely monitor development programs in order to adhere to the standards in the management and rational utilization of forests	To manage forest resources
12°	Develop relationship with other institutions, international organizations related to activities of forestry.	Cross-sector

Article 5 defines the competences of NAFA while Article 6 defines the relationship of NAFA with local administrative entities. Articles 8 to 20 outline the organization and functioning of NAFA while articles 21 to 24 define the source and management of the property and finances of NAFA. The strategic plan of the forestry sector aims to guide NAFA in the implementation of its mission.

In accordance to law n° 17/2008, NAFA is the custodian of forest management and agroforestry development in the country while the Ministry in Charge of Forestry has the Overall policy oversight in matters related to Forestry and agroforestry. The Forestry Sector is interconnected with many other institutions and therefore NAFA needs to work closely with them in order to achieve its mission. Table 2 present the key stakeholders of the Forestry Sector and their role and responsibilities in the implementation of the present strategic plan.

**Table 2: Stakeholders mapping for the Forestry Sector**

Institution	Role and Responsibilities
Ministry of Forestry and Mines (MINIFOM)	Overall policy oversight: monitoring and institutional support; resource mobilization, allocation and accountability; promotion of forestry sector at national and international levels
Ministry of Environment and Lands (MINELA)	Overall environment and land policies oversight including environment conservation, land tenure regularization and creation of forest cadastral system
Ministry of Agriculture and Animal Husbandry (MINAGRI)	Promotion of agroforestry and tree planting on farm and grazing lands; Sensitization of farmers on the role of forests in soil erosion control
Ministry of Local Government (MINALOC)	Sensitization and involvement of decentralized structures and communities in rational management of existing forests and reforestation
Ministry of Internal Security (MININTER)/Districts	To assist in reinforcing the forest law and other related regulations on the protection and commercialization of forest products
Ministry of Finance and Economic Planning (MINECOFIN)	Mobilization of funds for the implementation of the forestry policy and in the collection and processing forestry related statistics
Ministry of Education (MINEDUC)/SFAR	Sensitization of school communities in tree planting culture and rational forest management; Provision of scholarships in forestry related fields; Integration of forestry courses in national education programs.
Ministry of Science and Technology	Help wood and non-wood industry in Rwanda to access up-to date processing technologies for timber and non timber products.
Ministry of Foreign Affairs and Cooperation (MINAFET)	Promotion of bilateral and multilateral cooperation in the field of forestry and dissemination of forestry policies and strategies in diplomatic representations of

	Rwanda abroad and foreign representations in Kigali
Ministry of Commerce (MINICOM)	Issue of trading licenses to forest product traders, collaborate with NAFA to elaborate regulations of commercialization of forest products
Ministry of Infrastructure (MININFRA)	Construction of forest access roads; Policy on alternative sources of energy such as biogas, briquettes of residues (ex. Sawdust, rice husks, etc.), solar energy, etc.
Ministry of Disaster Management	Coordinate all activities related to disaster management including wild fires and other hazards
National Forestry Authority (NAFA)	Coordination of forest management and agroforestry development in the country
Rwanda Environment Management Authority (REMA)	Setting of environmental standards and monitoring of rehabilitation of degraded lands
Rwanda Geology and Mines Authority (OGMR)	Collaboration with NAFA in the management of mining forest
Rwanda Revenue Authority (RRA)	Setting of appropriate taxes and royalties for forest products
National Land Center (NLC)	Land administration and land tenure security through registration and land use planning
National Institute of Statistics (NISR)	Collaboration with NAFA in the collection of forestry statistics
Rwanda Development Board (RDB)	Promotion of investment in the Forestry Sector taking into account of its peculiarities
National Bank of Rwanda (BNR)	Provision of forestry and budget spending statistics
Other Banks and financial institutions	Development of financial products to promote investment in Forestry
Donors and funding organizations (ADB, World Bank, Netherland Embassy, FAO, EU, BTC, DFID, SIDA, IDRC, Chinese Embassy, JICA, USAID, UNDP, ...)	Provide funds and backstopping for bigger forestry projects such as PAREF, PAFOR (follow up phase), REDD and Carbon trade projects, forestry research development, capacity building and education programs, etc.
International NGOs (CARE, Africare, World Vision, Clinton Foundation, Helpage, Catalyst,...)	Implementation of small forestry or related projects (including rural development and food security projects)
Local Civil Society organizations (ARECO Rwanda Nziza, AREDI, ECOFOREST, ENAFOR,...)	Promotion of tree planting, tree nursery practices, soil conservation, watershed management, biodiversity conservation , etc.
Private sector (Private enterprises and initiatives)	Investment in Forest management and forest products processing, utilization, value addition and commercialization

**Source:** ENRSP (2009), MINIFOM (2010)



### **1.3 Policy context**

#### **1.3.1 National policies**

This section analyses the coherence of the National Forestry Strategic Plan with national strategies. The National Forestry Strategic Plan builds on the constitution of Rwanda, the GoR flagship programs of Vision 2020 and the Economic Development and Poverty Reduction Strategy (EDPRS), the Environment and Natural Resources Sector Strategic Plan (ENRSSP), the National Forestry Policy and other sectoral policies.

##### **(1) Constitution of the Republic of Rwanda**

Forestry is closely linked to the environment. Article 49 of the constitution stipulates that:

- (i) Every citizen is entitled to a healthy and satisfying environment;
- (ii) Every person has the duty to protect, safeguard and promote the environment;
- (iii) The State shall protect the environment; and
- (iv) The law will determine modalities for protecting, safeguarding and promoting the environment.

##### **(2) Vision 2020**

Vision 2020 recognizes that the major problem in the field of environmental protection in Rwanda is the imbalance between the population and the natural resources. This leads to alarming degradation observed through massive deforestation, the depletion of biodiversity, erosion and landslides, pollution of waterways and the degradation of fragile ecosystems. Vision 2020 further argues that wood is the source of energy for 99 % of the population, which leads to massive deforestation and soil destruction. Thus, Vision 2020 recommends diversification of energy sources and making them accessible to the population so as to ease the pressure on biomass. It therefore targets the share of wood energy in the national energy balance to drop from 94% in 2000 to 50% by 2020. Vision 2020 further sets the target for the forest cover to reach 30% of the national land area by year 2020 and the protection rate against erosion to rise from 20% in 2000 to 90% by 2020. The present strategic plan intends to narrow the gap to reaching these milestones of Vision 2020.

##### **(3) Economic Development and Poverty Reduction Strategy (EDPRS)**

The Rwanda's EDPRS for the period of 2008-2012 prioritizes forestry as a strategic sector for public intervention to limit natural resources degradation. Accordingly, EDPRS (2008-2012) recommends to the Forestry Sector to design and implement a reforestation strategy with diverse species, an inventory and mapping national forest resources to provide the basis for a ten year national forestry plan and a joint strategy with MINAGRI to promote agroforestry for non-wood uses, including medicinal uses, honey production, wild foods and handicraft production. EDPRS (2008-2012) further proposes increase of forest and agroforestry cover from 20 (2006/7) to 23.5% (2012) of total surface land area (this is equivalent to an increment of 89,583 ha); reduction of annual wood consumption by 30% from 2002 figure; rehabilitation of degraded ecosystems such as Gishwati and Mukura by 80%; intensification of agroforestry up to 85% of farmlands and development of a strategy for involving the private sector in forest management. The forest strategic plan comes in to draw the road map for the Forestry sector to achieve these objectives of EDPRS.

#### (4) MINISTRY policy and strategies

The Ministry of Forests and Mines (MINIFOM) has inherited the policy and strategies from its predecessors respectively MINITERE and MINIRENA. The five year strategic plan of MINIRENA for the Environment and Natural Resources Sector (ENRSSP) was approved in June 2009. The implementation of this ENRSSP will ensure that a sustainable use of environment goods and services, and rational utilization of natural resources contribute to national economic growth. The ENRSSP advocates sustainable management of forest and biomass resources to meet the growing multiple needs for food, fiber, fodder, fuel, as well as environmental services. The elaboration of this forestry strategic plan tunes well with the implementation of the ENRSSP.

#### 1.3.2 Sectoral Policies

Forestry activities are interlinked to many development sectors due to the cross cutting nature of goods and services provided by forests (see above). Table 3 presents major national sectoral policies that are closely related to the Forestry sector.

**Table 3: Relationships of other Sectoral Policies with the Forestry Sector**

Policy	Relationship with the Forestry Sector
Environment	The National Environment Policy and Strategy acknowledges soil erosion among major environmental problems the country is facing and proposes adequate forest/vegetation cover as one of the solutions.
Population	The National Population Policy recognizes environmental degradation as one of the causes of poverty in the country and recommends to the ministry in charge of forestry to consider land degradation and deforestation as national priorities.
Action Plan for Soil conservation	This action plan elaborated by MINAGRI aims at enhancing soil fertility and water conservation through control of soil erosion. Among the priority actions proposed is agroforestry using nitrogen fixing and multi-purpose trees.
Energy	In Rwanda, the majority of the population depends largely on biomass energy (more than 90%). The energy policy proposes to increase production and improve access to alternative energy by a larger number of people. Strategies proposed include dissemination and promotion of improved stoves as a means of saving wood.
Water	The water policy aims at equitable and sustainable access to clean water to all and enhancement of the management of water resources through reforestation of water catchments areas.
Agriculture	The National Agricultural Policy and the Agricultural Transformation Strategy aim at ensuring food security by means of increased agricultural production and income generation through crop intensification, diversification and improvement of agro-processing and marketing systems. The increase in agricultural production will be achieved mainly through improvement of soil fertility and erosion control. This is possible through promotion of agroforestry practices.
Industry	The industrial policy and Investment code aim to increase value addition to primary production in order to boost exports and create more jobs. This policy mentions particularly value addition on forest products through wood processing and woodwork (e.g. production of wooden panels, plywood, match making, etc.).

Gender	The gender policy clearly states the integration process of gender related issues in all development sectors in order to promote gender equity and equality. In Rwanda, forests and trees provide the bulk of energy used by most households. The collection of fuelwood is usually the responsibility of women and children. Easy access to forests/trees may eventually improve livelihoods of vulnerable groups, especially women and children.
Land	The overall goal of the land policy is to establish a land tenure system that ensures security for every Rwandan citizen. Thus, the land policy has the ambition to guarantee equal rights on land tenure for every user of the land, so as the latter may invest more in the land and use it rationally. Land tenure has a direct relationship to tree tenure.

**Source:** ENRSP (2009), MINIFOM (2010)

### 1.3.3 National Forestry Policy and Forest Law

The first written national forest policy was published in 2004. Due to rapid socio-economic and political changes that occurred since then, the national forest policy has recently been revised to meet the new challenges facing the forest sector (MINIFOM, 2010). At global level, new developments in effort to mitigate and to adapt to global warming also call for new interest in forests as carbon sink in addition to their traditional ecological and economic roles. The revised version of the national forestry policy is almost finished and expected to come out soon with the new forest law.

The National Forestry Strategy builds on this revised National Forestry Policy which has 14 guiding principles. These principles are general strategies that will also guide the implementation of this strategic plan and include:

- (1) **Sustainable Forest Management (SFM):** To manage all forest and tree resources to yield sustainable streams of social, economic and ecological goods and services on order forestry needs of the current generation without compromising similar rights of future generations.
- (2) **Commercialization of Forestry Operations:** To carry out forestry operations in a business-manner, with clear focus on result-based management. Thus, the private sector will be invited and facilitated to invest in wood processing and value-addition in all mature forest plantations.
- (3) **Species diversification:** To use a wide range of tree species in reforestation programs on the basis of species matching to site.
- (4) **Agroforestry technologies:** To promote on-farm forestry using multi-purpose fertilizer tree species due to land shortage for extensive forest plantations.
- (5) **Ecologically and physically fragile areas:** To manage such areas with special care in order to conserve the biodiversity therein and to protect areas prone to soil erosion and landslides.
- (6) **Forestry research:** To take key forest management decisions based on fundamentals of forestry science and adequate research.
- (7) **Stakeholder involvement and partnerships:** To involve all key stakeholders in forestry at various levels (national, district and community) in decision-making.
- (8) **Forest management planning:** To manage forests in accordance with approved management plans to achieve well defined objectives irrespective of ownership.

- (9) **Private sector involvement:** To promote a systematic phasing in of the private sector to play leading role in forest management and processing of forest products, leaving the public sector only the regulatory function, research and quality assurance.
- (10) **Decentralized governance:** To manage all state forests in accordance with decentralized governance prevailing in Rwanda through “*Performance Contracts*”.
- (11) **Forests as public good:** To manage all forests to serve a common good interest irrespective of ownership because of the multiple roles of forests. Therefore, any action taken in any forest will be regulated to safeguard that public interest.
- (12) **Livelihoods enhancement:** All strategies and interventions in the forest sector must be geared towards improvement of livelihoods and fighting poverty.
- (13) **Gender and equity:** To integrate assenting actions in all forest management plans to redress gender inequalities and disadvantaged groups.
- (14) **International Obligations:** To internalize current and future international conventions, agreements and protocols related to forestry in all strategies and interventions in the forest sector.

The first legislation on forestry in Rwanda was law no. 47/88 enacted in December 1988. This law was not effectively implemented due to war situation that followed afterwards. The failure to implement adequately the law led to further degradation of forest lands through excision, encroachment for agriculture, wild fires, grazing and uncontrolled harvesting. Considering the socio-economic and political transformation of the country since its enactment, the need for its review was quite evident. The new forest law is now at its final stage of enactment and will be instrumental in the implementation of this strategic plan.

#### **1.4 Achievements and trends of the Forestry Sector**

##### **1.4.1 Evolution since the colonial period**

The reforestation process in Rwanda was initiated in early 1900s by the colonial government. However, the recent history of the forestry sector in Rwanda can be divided into four major periods namely, the colonial period (1900-1962), the post-independence period (1962-1990), the war and genocide period (1991-1996) and the period afterwards to date (1997 – to date).

During the colonial period, the emphasis was mainly put on preservation of natural forest ecosystems and production of fuelwood. This period was marked by the creation of national parks and the launching of a large scale reforestation campaign mainly with Eucalyptus species. The period after independence to 1990 was marked particularly from mid-1970s by the implementation of many forest projects, the institutionalization of the national tree planting day, the elaboration of a Ten-year Forest Plan (1986-1997) and the promulgation of the first forest law.

A dramatic situation followed up during the war and genocide due to the anarchic prevailing conditions. Many public forests were anarchically logged and cleared while others were encroached for agriculture and settlement through illicit appropriation (kubohozza) between 1991 and 1996. Moreover most forestry projects were closed and most donors withdrew in 1994. The period after 1996 was characterized by the renaissance of the forestry sector through the institutionalization of the National Tree Planting Week in 2000, the launching of

the Forest Management Support Project (PAFOR) in 2002 and the launching of the first National Forest Policy in 2004. Figure 1 depicts the map showing the forest cover (>0.5 ha; >10% canopy cover) as of 2007.

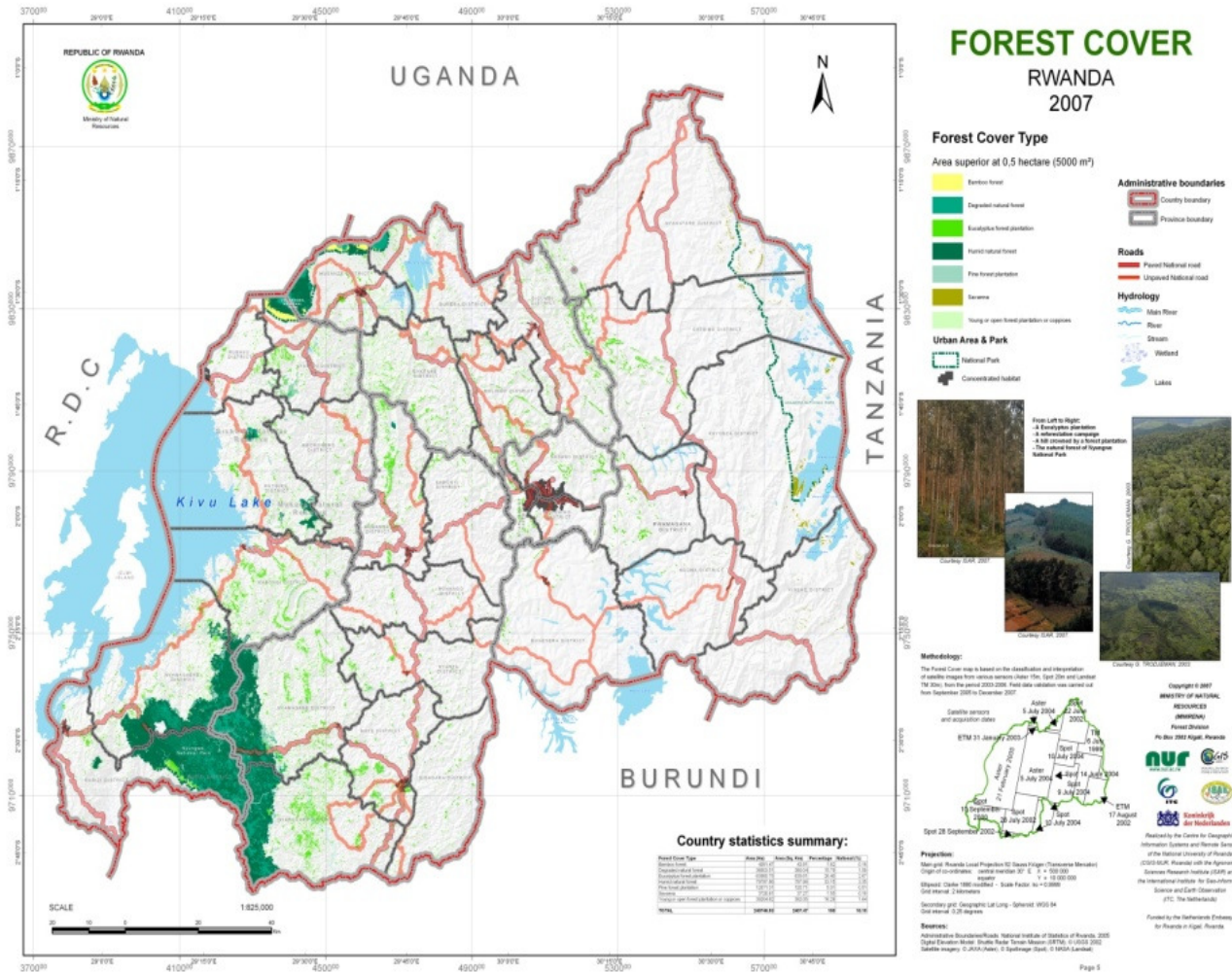


Figure 1: National forest cover (MINITERE, 2007)

### 1.4.2 Achievements since 2006/2007

The major objective of EDPRS (2008-2012) for the forestry sector is to provide adequate and sustainable supply of forest products and manage forestry resources for poverty alleviation by income and employment generation. In pursuit of this objective some of the achievements of the Forestry Sector since 2007 are presented in Table 4.

**Table 4: Main achievements of the forest sector since 2007**

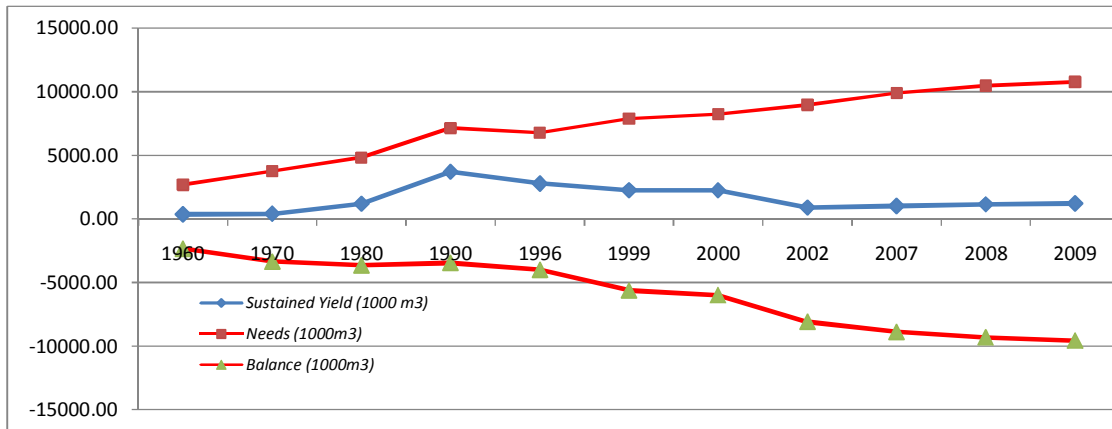
	<b>Objective</b>	<b>Key Achievements</b>
1	To review the National Forest Policy and Forest Law	The drafts of the new forest policy and forest law has been produced; The validation meeting with stakeholders was held and they are now at final stage of enactment
2	To supervise the preparation of District Forest Management Plans	29 District Forest Management Plans have been prepared and are now to be implemented
3	To prepare the National Action Plan to Combat Desertification	The draft document of the National Action Plan to Combat Desertification has been produced
4	To oversee the preparation of the National Forestry Plan	Forest Inventory and Mapping for 0.5 ha forests completed in 2007 Woodfuel Integrated Supply/Demand Overview Mapping (WISDOM) carried out by FAO in Rwanda in 2008 Three studies aimed at producing more accurate baseline data have been started and are still on-going.
5	To add value to trees and bamboo products	- A company from UK has won the contract for harvesting and value addition to the Nyungwe buffer zone trees. - A centre for bamboo production, processing and utilization technologies has been established at Kabuye in Gasabo District
7	To increase the national forest cover	23,614 ha were planted in 2007; 19,579 ha were planted in 2008. Therefore, having planted 43,193 ha to achieve the EDPRS target of 89,583 ha (3.5% forest cover); it remains only 46,390 ha to plant for 3 years.
8	To increase the forestry knowledge and awareness in the country	Preparation of the Communication Strategy of the Forestry sector is ongoing; Contract with the film maker has been signed; 2000 leaflets pages have been produced.
9	To build the capacity of the Forestry sector	10 foresters from NAFA have been sent to Kenya for training. Staff in charge of forestry have been appointed in 30 Districts

**Source:** MINIFOM (2010)

### **1.4.3 Demand and sustained supply of forest products**

The demand for forest products has been rising with population growth while the forest area has been declining with years after independence in the 1960s. According to MINIFOM (2010) natural forests areas have declined by 65% between 1960 and 2007. The remarkable afforestation effort during this period did not manage to offset the cumulative loss of forest cover. Figure 2 shows the attrition of forest cover and surge in forest products demand from 1960-2009. The estimation of sustained yield was based on average sustainable harvesting per hectare of forest which varies from 15m<sup>3</sup> (before 1996) to 8m<sup>3</sup> (after 1996). The calculation for forest products demand was based on an inquiry carried out by MINAGRI in 1981/1982 which found that a medium Rwandan consumer uses 0.91m<sup>3</sup> of wood per year. In order to take care of new realities of emerging needs after 1982, especially the development of new lifestyles, more wood for the construction sector in urban areas and more fuelwood for various institutions including schools, prisons, military camps, tea

factories and others, the value was re-evaluated to 1.1m<sup>3</sup>(imports of timber products excluded) (MINIFOM,2010).



**Figure 2:** Imbalance between needs and sustained yield of wood in Rwanda, from 1960 to 2009 (MINIFOM, 2010).

## 1.5 Problems and opportunities of the Forestry Sector

### 1.5.1 Challenges (problems, constraints, weaknesses and threats)

The forest sector in Rwanda faces many challenges and constraints (Table 6). However, the major problems can be summarized as follows (MINIFOM, 2010):

- (1) *Depletion of natural vegetation:* Areas of natural forests have declined by 65% between 1960 and 2007 and a number of tree species are under threat of extinction.
- (2) *Land scarcity:* There is limited land for large scale reforestation. The competition with agriculture leaves forestry with only marginal lands unsuitable for food crops.
- (3) *Under valuation of forestry:* The economic importance of forestry is underestimated because no comprehensive study on this issue has ever been carried out so far and most of forest products are consumed outside the formal market place making realistic data capture quite impossible.
- (4) *Lack of standard forest management practices:* No forest in the country is managed with a proper management plan (inadequate or absence of silvicultural operations) which leads to highly reduced quality and quantity of forest products.
- (5) *Uneven distribution of forest cover in the country:* The forest resources are unevenly distributed over the country, with more forests in the west and less forests in the East.
- (6) *Poor knowledge of national forest stock:* The forest mapping and inventory realized in 2007 is incomplete as it ignores forests smaller than 0.5ha whereas these tiny woodlots (as small as 0.01ha) constitute the source of livelihoods of the majority of the population (Nduwamungu & Munyanziza, 2008).

- (7) *Wasteful timber conversion and consumption*: Timber processing is still traditional and wasteful using mainly pit-sawing. Moreover not many villagers have adopted improved cooking stoves.
- (8) *Dominance and under-utilization of Eucalyptus*: One species - the *Eucalyptus*- dominates forest plantations but unfortunately, it is under utilized as many of its products such as essential oil and fine timbers remained poorly exploited.
- (9) *Poor forest extension services*: The forest extension services are inadequate being understaffed and ill equipped.
- (10) *Under funding*: The sector is under-funded compared to its economic and ecological importance.
- (11) *Inadequate investment in forest research*: The arboretum of Ruhande established in 1934 lacks proper scientific monitoring. This plantation with more than 200 different tree species is mismanaged with an old management plan that was never implemented properly. Forest research managed by the Agricultural Research Institute (ISAR) has not received due attention as deserved because most emphasis is put on food crops and livestock rather than trees.
- (12) *Lack of skilled human resources*: The forestry sector is under staffed, with only 27 forestry professionals out of about 150 foresters needed in the country (MINIFOM, 2010).

### **1.5.2 Opportunities and strengths**

Despite many problems, the forestry sector has also many opportunities on which the country can capitalize on to face the challenges. Some of these opportunities and strengths include:

- (1) High level political good will to support forestry development,
- (2) Environmental protection is ranked among national priorities,
- (3) Existence of decentralized civil governance structures,
- (4) Existence of the National Forestry Fund (NFF),
- (5) Many national policies and programs prioritize forestry as one of the key interventions
- (6) Existence of many international conventions and agreements on forests which have been ratified by Rwanda such as GEF, UNCCC, UNCCD, COMIFAC, EAC and the Nile Initiative
- (7) Existence of increasingly heavy network of access roads to new village settlements (Imidugudu),
- (8) Existence of a forum for private sector and
- (9) Increasing global interest on forests as carbon sink.

Table 6 presents the summary of the analysis of strengths, weaknesses, opportunities and threats (SWOT analysis) for the Forestry Sector.



**Table 5: Summary of the SWOT analysis for the Forestry Sector**

<b>Strengths</b>	<b>Weaknesses (challenges, constraints, problems)</b>
1. Political good will to develop the sector	1. Lack of enough skilled forest professionals
2. New Forest policy and Forest Law at last stages of enactment	2. Uneven distribution of forest resources over the country (skewed distribution)
3. Existence of NAFA and decentralized structures	3. Low afforestation rate due to shortage of land (0.029 ha vs. 1 ha advocated by FAO)
4. Existence of the National Forestry Fund (NFF)	4. Lack of proper silvicultural prescriptions (No forest management plan)
5. Growing public and global awareness on environmental services of forests	5. Incomplete forest inventory covering only 0.5ha forests
6. Existence of great workforce in rural areas	6. Dominance of Eucalyptus species in plantations (>80%)
7. High demand of forest goods and services	7. Under-estimation of the economic importance of forestry to national economy
8. Multiple purpose nature of forest goods and services	8. Over-mature forest plantations not harvested
	9. Wasteful timber conversion and consumption technologies
	10. Inadequate extension services
	11. Most forests are on marginal lands
	12. Investment takes long to bring in returns
<b>Opportunities</b>	<b>Threats (constraints, Barriers, problems)</b>
1. Environmental protection is ranked among national priorities	1. Excessive and indiscriminate cutting of forests
2. Existence of decentralized civil governance structures	2. Unreliable donors funding commitments
3. Many national development policies and programs prioritize forestry as one of the key interventions	3. Forest hazards (fires) and diseases (ex. <i>Cinera cupressi</i> for cypress and <i>Leptocybe invasa</i> reported on Eucalyptus)
4. Adherence to international and regional conventions, networks and agreements on forests.	4. Under-funding of the forestry sector
5. Existence of a forum for private sector engagement with the Government of Rwanda.	5. Reduced enthusiasm of the population for tree planting due to various reasons
6. Increasing global interest in forests as carbon sink	6. Introduction of exotic species without prior testing by research stations
7. Existence of increasingly heavy network of access roads to new village settlements (Imidugudu)	7. Inadequate follow up, monitoring and funding of forest research

**Source:** ENRSP (2009), MINIFOM (2010)

## 2. The strategic framework

### 2.1 Vision

The vision of the forest sector is that through sound forest management, forest resources will play increased roles in national economy and biodiversity conservation and current benefits from forests enjoyed by contemporary generations will be enhanced to ensure that the well being of future generations is not compromised. Moreover, the increase of forest cover, high value addition to forest products and rational utilization of forests will contribute to a balanced development through economic growth and promotion of ecological values.

### 2.2 Objectives

The national forestry strategy will pursue the same overall goal of the forest policy which is *“to make the forestry sector one of the bedrocks of economy and national ecological balance for sustainable benefits to all segments of the society”*.

### 2.3 Specific Objectives

Three specific objectives are targeted by the present strategy:

- (1) To increase forest and agroforestry resources in order to meet the national needs in timber and non-timber forest products and services for public, personal and commercial uses.
- (2) To manage forests to optimize their economical as well as ecological functions such as soil erosion control, climate regulation and biodiversity conservation in a sustainable manner.
- (3) To provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors

### 2.4 Strategies for implementing these objectives

The specific objectives outlined above will be achieved through fifteen strategies described in Table 7.

**Table 6: Strategies to achieve specific objectives of the strategic plan**

Specific objectives	Strategies
1. To increase forest and agroforestry resources in order to meet the national needs in timber and non-timber forest products and services for public, personal and commercial uses	1. Increase area and diversity of national forest resources
	2. Promote growing of multi-purpose trees in all farming systems
	3. Avail improved seed and other germplasms
	4. Introduce, promote and support innovative financing mechanisms such as ecotaxes, trusts, payment for environmental services, carbon trade, etc.
2. To manage forests to optimize their economical as well as ecological functions such as soil erosion control, climate regulation and biodiversity conservation in a sustainable	1. Improve management of forest resources towards sustainability
	2. Develop management plans for state forests
	3. Promote value addition technologies to wood and non wood forest products
	4. Reduce wood energy consumption

manner.	5.Foster and facilitate national trade and export of forest products
3. To provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors	1. Scale-up forestry extension and education to schools and other communities
	2. Strengthen forestry and agro-forestry research
	3. Strengthen regional and international cooperation in forestry
	4. Promote women and youth involvement in forestry activities that generate income
	5. Strengthen the policy and legal framework of forestry activities
	6. Improve information management system in order to foster better planning and M&E for forest management

## 2.5 Proposed activities to implement the strategies

Several activities will be carried out in order to implement the fifteen strategies. Table 7 highlights major activities proposed to realize the specific objectives and corresponding strategies.

**Table 7: Major activities proposed to implement the strategies**

Strategies	Activities
<b>1.1</b> Increase area and diversify the national forest resources	1. Carry out an inventory of spaces to reforest
	2. Carry out a study to identify appropriate species for planting in the identified areas
	3. Develop specific reforestation and afforestation programs
	4. Develop 416 nurseries(198,325 trees each ) with a total 83,502,000 trees
	5. Reforest 46 390 ha of government and peoples land
	6. Prepare and plant trees on every world tree day on 2000 ha and maintain them
<b>1.2</b> Promote growing of multi-purpose /agroforestry trees in all farming systems	1. Carry out a study to identify suitable agro forestry trees for planting in various farming systems
	2.Support farmers in establishing and maintaining 1000 nurseries each with 153,000 trees
	3. Mobilize farmers to plant agro forestry trees in their farming system
	4. Reward best farmers practicing agro forestry.
	5. Liaise with land centre and RADA to ensure that land titles are offered to farms with plants as the law requires
<b>1.3</b> Avail improved seeds and other germplasms	1. Import high quality forestry and agro forestry seeds suitable to Rwanda
	2. Support ISAR/Forest Research Service to use biotechnology to multiply agro forestry and forestry seedlings.
	3.Train and support farmers to engage in agro forestry and forestry seeds business
<b>1.4</b> Promote and support innovative financing	1.Develop a cabinet paper (concept note) on this
	2.Develop the necessary legislation

mechanisms such as eco-taxes, trusts, payment for environmental services, and carbon trade	3. Develop a project for carbon trade , eco-taxes, trusts and environmental services
<b>2.1.</b> Improve management of forest resources towards sustainability	1. Support the implementation of the District Forestry Plan
	3. Train authorities and technicians in the use of the plans
	4. Develop a national forestry protection plan
	5. Form provincial commissions and local evaluation committees on forestry management
	6. Equip the forestry protection department for efficient fight against damages to forests at the district levels
<b>2.2.</b> Develop management plans for state forests	1. Identify and characterize state forests
	2. Localize and map state forests
	3. Elaborate exploitation plan for state forests
<b>2.3.</b> Promote value addition technologies to wood and non wood forest products	1. Carry out a study to identify national needs in wood processing and the required treatment infrastructure
	2. Establish one modern wood processing and treatment unit per province
	3. Sensitize the private sector operators on reusing wood by-products, taking into account the gender aspect
	4. Support private sector to add value to bamboo products
<b>2.4</b> Reduce wood energy consumption	1. Identify and disseminate appropriate alternative energy sources to wood energy
	2. Promote the use of improved techniques for charcoal making
	3. Mobilize and Support 100 families per sector to use improved energy stoves.
	4. Provide incentives to technologies that save wood energy
<b>2.5</b> Foster and facilitate national trade and export of forestry products	1. Carry out to identify and develop exportable and importable tree species
	2. Promote existing wood by products recycling to economic operators
	3. Provide incentives to investors with viable export forest products
<b>3.1.</b> Scale-up forestry extension and education to schools and other communities	1. Mobilize and support school going children and youth organizations to grow and conserve trees
	2. Sensitize and build capacity of farmers and private sector to promote farm forestry
	3. Support farmers groups to establish and manage tree nurseries for commercial purposes
	4. Develop training programs and field frontline extension agents
	5. Develop and disseminate brochures to farming households on forestry and agroforestry
<b>3.2.</b> Strengthen forestry and agro-forestry research	1. Support research for development of suitable agro forestry seeds
	2. Support the training of scientists in forestry and agro forestry
	3. Carry out non-native adaptability tests /providence trials, one at each district
	4. Lobby and support universities /higher institutions of learning to do research in forestry and agro forestry

<b>3.3.</b> Strengthen regional and international cooperation in forestry	1. Participate in international and regional fora on forestry and agro forestry
	2. Ratify and implement international treaties on forestry and agro forestry
	3. Develop and implement joint regional forestry and agro forestry projects.
	4. Negotiate with ICRAF and AFRENA to scale up projects in Rwanda
<b>3.4.</b> Promote women and youth involvement in forestry activities that generate income	1. Sensitize women and youth to plant wood lots for sale
	2. Undertake skills training and apprenticeship in wood processing
	3. Organize women and youth to plant and manage trees in public areas such as schools and health institutions
	4. Establish agro forestry seedling selling units in each district
<b>3.5.</b> Strengthen the institutional, policy and legal framework of forestry activities	1. Support and train NAFA staff to effectively carry out their duties
	2. Hold stakeholder planning and M& E meetings at provincial and District levels
	3. Encourage and Support Local NGOs and CBOs to promote community forestry
	4. Carry out an inventory of all stakeholders in the forestry sector and constitute a forum.
	5. To sensitize institutions on reforestation and agro-forestry policy and laws
	7. Finalize the new forest legislation
	8. Elaborate regulations and procedures manuals
<b>3.6.</b> Improve information management system in order to foster better planning and M&E for forest management	1. Collect and disseminate national statistics on forest plantations, management and wood products
	3. Conduct a study on the contribution of the Forestry Sector to the National Economy
	4. Make use of the WISDOM model and conduct forest inventory and forest mapping
	5. Carry out an agroforestry inventory ( to assess the potential of agroforestry in the country)
	6. Develop and update regularly a website for NAFA

## 2.6 Implementation arrangements and coordination

As indicated in the logical frame work in Table 8, the implementation of this Strategic Plan will follow the sector wide approach and will involve many actors. These actors have different backgrounds and understanding of the role of forestry sector to national development. To ensure that all these actors work for the common good and deliver services in a complementary and non duplicating manner, NAFA will need to coordinate and cooperate with all institutions that have a stake in the promotion and development of forestry sector. There is need for strong coordination in planning, implementation, monitoring and evaluation of all forestry activities. This will encourage every actor to plan and implement priority actions instead of wasting resources on non-priorities. The proposed monthly meeting with provincial and district forest committees will be critical to the success of the forestry sector development.

**Table 8: Implementation plan and Logical frame**

Strategy	Expected outcomes	Activities	Indicators	Timeframe	Responsibility
<b>Specific objective 1- To increase forest and agro forestry resources to meet the national needs in timber and non-timber forest products and services for public, personal and commercial uses</b>					
1.1 Increase area and diversify the national forest resources	1.1.1 46,390 ha of government and peoples land have been planted with trees	1. Carry out an inventory of spaces to reforest	An inventory of spaces to reforest is available	2010	<b>NAFA</b>
		2. Carry out a study to identify appropriate species for planting in the identified areas.	A list of appropriate list is available	2010	<b>NAFA,ISAR</b>
		3. Develop specific reforestation and afforestation programs	A specific reforestation and afforestation program has been developed	2010	<b>MINIFOM,NAFA</b>
		4. Develop 416 nurseries(198,325 trees each ) with a total 83,502,000 trees	416 nurseries ( 198,325 trees each) with a total of 83,502,000 trees have been established	2010-2012	<b>MINIFOM,NAFA, MINALOC, Districts</b>
		5. Reforest and forest 46 390 ha of government and peoples land	46,390 ha have been reforested and forested in the three years	2010-2012	<b>MINIFOM,NAFA,</b>
		6. Prepare and plant trees on every world tree day on 2000 ha and maintain them	A total of 6000 ha were planted on the world tree days 2009-2012	2010-2012	<b>MINIFOM,NAFA, Districts</b>
1.2 Promote growing of multi-purpose /agroforestry trees in all farming systems	1.2.1 85 % of agricultural land is planted with agro forestry trees	1. Carry out a study to identify suitable agro forestry trees for planting in various farming systems	A list of suitable agro forestry trees for planting in various farming systems was established	2010	<b>MINIFOM,NAFA, Districts</b>

		2.Support farmers in establishing and maintaining 4,148 nurseries each with 71,229 trees	Farmers have been supported to establish and maintain 2,148 nurseries of 71,229 trees each	Annually	<b>MINIFOM,NAFA, Districts</b>
		3. Mobilize farmers to plant agro forestry trees in their farming system	Farmers were mobilized and supported to plant 153 million agro forestry trees in their farming systems	Annually	<b>MINIFOM,NAFA, MINALOC ,Districts</b>
		4. Reward best farmers practicing agro forestry in every sector.	The best farmer practicing agro forestry in every sector was rewarded.	Annually	<b>NAFA</b>
		5. Hold monthly meetings with the National Land Centre and RADA to ensure that land titles are offered to farms with plants as the law requires	Monthly meetings with land centre and RADA on land titles were held.	Monthly	<b>NAFA,NLC,RADA</b>
1.3 Avail improved seeds and other germplasm	1.3.1 All planted forestry and agro forestry seeds and other germplasm are improved types	1. Buy and distribute 10 tones of high quality forestry and agro forestry seeds suitable to Rwanda	10 tons of high quality forestry and agro forestry seeds suitable to different ago-ecological zones were bought and distributed.	Annually	<b>NAFA,ISAR</b>
		2. Support ISAR to use biotechnology to multiply agro forestry and forestry seedlings.	ISAR was supported to use biotechnology to multiply agroforestry and forestry seedlings.	2010	<b>MINIFOM,NAFA, MINECOFIN</b>
		3.Train and support 4 farmers in every sector to engage in agro forestry and forestry seeds business	4 farmers in every sector were trained and supported to engage in agroforestry and forestry seeds business.	2010-2012	<b>NAFA,ISAR, ICRAF</b>

1.4 Promote and support innovative financing mechanisms such as eco-taxes, trusts, payment for environmental services, and carbon trade	1.4.1Eco-taxes, trusts and environmental fees are operational	1.Develop a cabinet paper on this	A paper cabinet on carbon trade, eco-taxes and environmental was developed and approved	2011	<b>NAFA,REMA</b>
		2.Develop the necessary legislation	Legislation on carbon trade, ecotaxes and environmental fees was passed	2011	<b>NAFA,REMA</b>
		3. Develop a project for carbon trade , eco-taxes, trusts and environmental services	A project for carbon trade , eco-taxes, trusts and environmental services was developed	2011	<b>NAFA,REMA</b>
<b>Specific Objective 2.To manage forests to optimize their economical as well as ecological functions such as soil erosion control, climate regulation and biodiversity conservation in a sustainable manner</b>					
2.1.Improve management of forest resources towards sustainability	2.1 50 % National Forests resources are sustainably managed	1.Support the implementation of the District Forestry Plan	20 Districts with financial constraints and serious soil erosion were supported to implemented their DFMP	2010-2012	NAFA, MINECOFIN
		2.Train authorities and technicians in the use of the plans	506 authorities and technicians were trained in the use of the DFMP	2010	NAFA
		3.Update and multiple the forestry map at 1/25 000 by the end of 2010	The updated forestry map at 1/25 000 is available in multiple copies	2010	NAFA
		4.Establish a forestry statistical database (analytical) and construct a web site by 2010	A forestry statistical database (analytical) and a web site are available	2010	NAFA,NISR



		5.Develop a national forestry protection plan	National forestry protection plans for 26 financial weak district are developed and available	2010	MINIFOM,NAFA
		6.Form provincial commissions and local evaluation committees on forestry management	Provincial commissions and local evaluation committees on forestry management have been formed.	2010	NAFA,MIN ALOC
		7.Equip the forestry protection department for efficient fight against damages to forests at the district levels	The forestry protection staff are equipped with technical tools for efficient fight against damages to national forests	2010	NAFA, Districts
2.2 Develop management plans for state forests	2.2.1 All state forests are identified and plans to properly manage them are in place	1.Identify and characterize state forests	National state forests are identified and categorized	2010	NAFA,RDB, REMA
		2.Localize and map state forests	The maps for state forests available	2011	NAFA,RDB
		3. Elaborate exploitation plans for state forests	Exploitation plans for state forests are available	2012	NAFA,RDB
2.3.Promote value addition technologies to wood and non wood forest products	2.3.1 Value addition infrastructure to wood and non-wood products has increased by 5 times	1.Carry out a study to identify national needs in wood processing and the required treatment infrastructure	National needs in wood processing and the required treatment infrastructure are known	2010	NAFA,PSF
		2.Establish one modern wood processing and treatment unit per province	A modern wood processing and treatment unit is established in Northern and Western Provinces respectively	2011-2012	NAFA,PSF

		3.Sensitize the private sector operators on reusing wood by-products, taking into account the gender aspect	Private sector operators are sensitized on reusing wood by-products, taking into account the gender aspect	2010-2011	NAFA,PSF
		4.Support private sector to add value to bamboo products	Partnership with private sector to start 2 value addition units to bamboo products exists	2010-2012	NAFA,PSF
2.4 Reduce wood energy consumption	2.4.1 Wood energy consumption has been reduced	1.Study, identify and disseminate appropriate alternative energy sources to wood energy	Both current wood energy consumption vs. available resources as well as appropriate alternative energy sources are known	2010	NAFA,MININFRA, MINALOC,REMA
		2.Promote the use of improved techniques for charcoal making	20 demonstration units on improved techniques for charcoal making are set up	2011-2012	NAFA
		3. Mobilize and Support 100 families per sector to use improved cooking stoves.	100 families per sector have been supported to use improved energy stoves.	2011-2012	NAFA
		4.Provide incentives to technologies that save wood energy	Incentives to technologies that save wood energy are given	2011-2012	NAFA,MININFRA
2.5 Foster and facilitate national trade and export of forestry products	2.5.1 National forestry products are competitively traded nationally, regionally and internationally	1.Carry out a study to identify and develop exportable and importable tree species	A list of exportable and importable tree species is available	2011	NAFA,PSF
		2.Promote existing wood by products recycling to economic operators	10 wood by products recycling are operational	2011-2012	NAFA,PSF

		3. Provide incentives to investors with viable export forest products	5 investors with viable export forest products have been given incentives	2011-2012	NAFA, PSF
<b>Specific Objective 3. To provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors</b>					
3.1. Scale-up forestry extension and education to schools and other communities	3.1.1 Extension agents have the capacity and commitment to schools and farmers involvement in Forestry and agro forestry	1. Mobilize and support school going children and youths organizations to grow and conserve trees	One school and one youths organization per sector has been supported to grow and conserve trees	2010-2012	NAFA, RADA, ISAR
		2. Sensitize and build capacity of farmers and private sector to promote farm forestry	100 farmers/ private sector in every district have been trained to promote farm forestry	2012	NAFA, RADA, ISAR
		3. Support farmers groups to establish and manage tree nurseries for commercial purposes	4 farmers groups/sector have been supported to establish and manage tree nurseries for commercial purposes	Annually	NAFA, RADA, ISAR, PSF
		4. Develop training programs and field front-line extension agents	10 field front-line extension agents are sent for training abroad on forestry and agro forestry	Annually	NAFA, RADA, ISAR, PSF
		5. Develop and disseminate brochures to farming households on forestry and agroforestry	70,000 brochures on forestry and agro forestry have been disseminated to farming households	2010	NAFA, RADA, ISAR, PSF
3.2 Strengthen Forestry and agroforestry research	3.2 Forestry and agro forestry research is strengthened	1. Support ISAR to research into the development of suitable agro forestry seeds	ISAR is every year supported to research into the development of suitable agro forestry seeds	Annually	NAFA, RADA, ISAR

		2. Support the training of 4 scientists in forestry and agro forestry every year	4 scientists in forestry and agro forestry are sent for training every year	Annually	NAFA,RADA, ISAR
		3.Carry out non-native adaptability tests /providence trials, one at each district	.Non-native adaptability tests /providence trials are carried in each district	2011	NAFA,RADA, ISAR
		4. Lobby universities /higher institutions of learning to do research in forestry and agro forestry	Universities /higher institutions of learning are involved in forestry and agro forestry research twice a year	Annually	NAFA,RADA, ISAR,MINEDUC
3.3. Strengthen regional and international cooperation in forestry	3.3.1Regional and International cooperation in forestry strengthened	1.Participate in international and regional fora on forestry and agro forestry	NAFA participates in international and regional fora on forestry and agro forestry three times per year	2010-2012	NAFA,MINIFOM, MINAFFET
		2.Ratify and implement international treaties on forestry and agro forestry	International treaties on forestry and agro forestry are ratified and implemented	2010-2012	NAFA,MINIFOM, MINAFFET
		3. Develop and implement joint regional forestry and agro forestry projects.	A joint regional on forestry and agro forestry project is operational.	2011	NAFA,MINIFOM, MINAFFET
		4.Negotiate with ICRAF and AFRENA to scale up projects in Rwanda	ICRAF and AFRENA activities scaled up projects in Rwanda	2011	NAFA,MINIFOM, MINAFFET
3.4. Promote women and youth involvement in forestry activities that generate income	3.4.1Womenand Youths are involved in forestry income generating activities	1.Sensitize women and youth to plant wood lots for sale	Women and youths at cell level are sensitized to plant wood lots for sale	2010-2012	NAFA,MINIFOM, MINIIYOUTH
		2.Undertake skills training and apprenticeship in wood processing	10 Youths per district are trained in skills and apprenticeship in wood processing	2010-2012	NAFA,MINIFOM, MINIIYOUTH

		3. Organize women and youth to plant and manage trees in public areas such as schools and health institutions	Women and youths are organized to plant and manage trees in at least 100 public institutions per district every year	2010-2012	NAFA,MINIFOM, MINICYOUTH, MIGEPROF
3.5.Strengthen the institutional, policy and legal framework of forestry activities	3.5.1Forestry sector Institutional, policy and legal framework is strengthened	1. Support NAFA functioning for to effective service delivery	NAFA is supported every year for effective service delivery	Annually	NAFA,MINECOFIN
		2.Hold stakeholder planning and M& E meetings at provincial and District levels every year	Stakeholder planning and M& E meetings are held at provincial and District levels every year	2010-2012	NAFA,MINALOC
		3.Encourage and Support Local NGOs and CBOs to promote community forestry	Local NGOs and CBOs are encouraged to promote community forestry	Annually	NAFA
		4. Carry out an inventory of all stakeholders in the forestry sector and constitute a forum.	Stakeholders in the forestry sector are known and constitute a forum.	2010	NAFA,ISAR
		5 Sensitize institutions on reforestation and agro-forestry policy and laws	Institutions are sensitized on reforestation and agro-forestry policy and laws	2010	NAFA,MINIFOM
		6.Elaborate new legislation and update the existing ones	A new legislation is elaborated and the existing one is updated.	2010-2011	NAFA,MINIFOM, MINIJUST
		7.Elaborate regulations and procedures manuals	Internal Regulations and procedures manuals are elaborated	2010	NAFA,MINIFOM, MINIJUST

3.6. Improve information management system in order to foster better planning and M&E for forest management	Information management system for better planning and M&E for forest management is improved.	1. Collect and disseminate national statistics on forest plantations, management and wood products	National statistics on forest plantations, management and wood products are collected and disseminated annually.	2010-2012	NAFA, MINIFOM, NISR
		2. Conduct a study on the contribution of the Forestry Sector to the National Economy	A study on the contribution of the forest sector to the national economy is done and available.	2009	NAFA, MINIFOM, NISR
		7. Make use of the WISDOM model and conduct forest inventory and forest mapping	The WISDOM model is used in conducting forest inventory and mapping.	2010-2012	NAFA, MINIFOM, NISR, ISAR
		8. Carry out an agro forestry inventory ( to assess the potential of agro forestry in the country)	An agro forestry inventory is available.	2010	NAFA, MINIFOM, NISR, MINAGRI & AGENCIES.
		9. Develop and update regularly a website for NAFA	NAFA website is developed and regularly updated.	2009-2012	NAFA, MINIFOM, NISR & RDB/RITA

### **3 Monitoring and evaluation framework**

The table over leaf summarizes the monitoring and evaluation framework and indicates the performance indicators, means of verification, how often data is collected and who is responsible for its collection.

#### **3.1 Institutional Responsibility**

It is the duty of NAFA to continuously assess the progress of various monitoring indicators in the strategic plan particularly at activity level. Monitoring process requires collecting and analysis of data that serves as a guide to either continue the pace and direction of implementation in case the institution is on the right course of action or set up corrective if it has diverted from the original path. It is therefore necessary that NAFA overall administration coordinates all the activities within the institution to ensure that various departments share information, experiences and above of all work towards a common a vision. This is particularly important as one department's weakness affects the performance of the other and vice versa

##### ***3.1.1 Objective of Monitoring and Evaluation framework***

The objective of NAFA's 2009 - 2012 monitoring and evaluation framework is to gradually gather needed information on the evolution of activities under its strategic plan.

The gathered information is analyzed and this allows NAFA to measure the achievements/impact in relation to the stated objectives. It is essential to disseminate this information to various stakeholders intervening in the sector for purposes of coordination.

The information will also be used a basis for reviewing the Strategic Plan as well as future planning.

##### ***3.1.2 Users and Parties involved in M&E framework***

The following parties will use the monitoring and evaluation information:

- Government (Supervising Authority: MINIFOM) and donors;
- Leaders of the NAFA (Board of Directors and the Director);
- Other partners intervening in the Forestry sector;
- Primary beneficiaries: the private sector and decentralized entities.

##### ***3.1.3 Data collection and reporting***

Information will be collected and analyzed for two reasons:

- To progressively monitor progress at activity level. This will be done to monitor the progress of the achievements of financial and technical targets and this is an internal process that will be carried out essentially by NAFA staff;
- To monitor and evaluate outcomes and impact of various NAFA operations: This will be an external process and data will mainly come from external services such as national surveys

### **3.2 Monitoring and Evaluation as an input into the adjustment of the Strategic Plan**

Monitoring is based on the assessment of what has been achieved at budget and activities level as compared to the planned. This assessment gives an indicator of performance at the technical, financial, and duration of the activity levels. For NAFA to achieve to this, analyzed and verified field data will be used in analyzing plans and achievements. It is on this basis that technical reports will be prepared and linked with the financial data.

An annual plan as well as quarterly plans will be developed at the beginning of the final year and these are monitored for comparisons purposes. All departments will organize, under the supervision of their heads, a quarterly meeting to evaluate activities achieved in the previous quarter as compared to what had been planned.

This will allow NAFA to make the necessary adjustments. The progress report on NAFA activities will be compiled by monitoring and evaluation staff based on quarterly reports.



**Table 9: Performance Indicators, Monitoring and Evaluation Framework for NAFA**

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
<b>Specific objective 1- To increase forest and agro forestry resources to meet the national needs in timber and non-timber forest products &amp; services for public, personal and commercial uses</b>								
<b>Outcome 1.1 46,390 ha of government and peoples land have been planted with trees by 2012</b>								
1. An inventory of spaces to reforest is available	NAFA Study report	Research & Planning Unit	Annually	0	1	1		
2. A list of appropriate species for planting in the identified areas has been established	NAFA Study report	Research & Planning Unit	Annually	0	1	1		
3. A specific reforestation and afforestation program has been developed	NAFA activity report	Field Program Unit	Annually	0	1	1		
4. 416 nurseries(198,325 trees each ) with a total of 83,502,000 trees have been established	NAFA activity report	Field Program Unit	quarterly	0	83,502,000	27,834,000	27,834,000	27,834,000
5. 46,390 ha have been Reforested and forested in the three years	NAFA activity report	Field Program Unit	quarterly	21.7%	46,390 (1.81%)	15,463 (0.6%)	15,463 (0.6%)	15,463 (0.6%)
6. 2000 ha were planted on every world tree day 2009-2012	NAFA activity report	Field Program Unit	quarterly	-	6000	2000	2000	2000

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
<b>Outcome 1.2. 85 % of agricultural land is planted with agro forestry trees</b>								
1. A list of suitable agro forestry trees for planting in various farming systems was established	NAFA Study report	Research & Planning Unit	Annually	0	1	1		
2. Farmers have been supported to establish and maintain 2148 nurseries of 71,229 trees each	NAFA activity report	Field Program Unit	Quarterly	0	1000	400	374	374
3. Farmers were mobilized and supported to plant 153 million agro forestry trees in their farming systems	NAFA activity report	Field Program Unit	Quarterly	30 trees/H	90 trees/HH	30	30	30
4. The best farmer practicing agro forestry in every sector was rewarded.	NAFA activity report	Field Program Unit	Annually	0	1248	416	416	416
5. Monthly meetings with land centre and RADA on land titles were held.	NAFA activity report	Field Program Unit	Monthly	0	36	12	12	12
<b>Outcome 1.3 All planted forestry and agro forestry seeds and other germplasm are improved types</b>								
1. 10 tons of high quality forestry and agro forestry seeds suitable to different agro-ecological zones were bought and distributed	NAFA activity report	Field Program Unit	Annually	0	10	4	3	3
2. ISAR was supported to use biotechnology to multiply agro forestry and forestry seedlings.	NAFA activity report	Research & Planning Unit	Annually	0	1	1		

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
3. 4 farmers in every sector were trained and supported to engage in agro forestry and forestry seeds business	NAFA activity report	Field Program Unit	Quarterly	0	1664	555	555	554
<b>Outcome 1.4 Eco-taxes, trusts and environmental fees are operational</b>								
1.A paper cabinet on carbon trade, eco-taxes and environmental was developed and approved	NAFA activity report	Research & Planning Unit	Annually	0	1		1	
2.Legislation on carbon trade, ecotaxes and environmental fees was passed	NAFA activity report	Research & Planning Unit	Annually	0	1		1	
3.A project for carbon trade , eco-taxes, trusts and environmental services was developed	NAFA activity report	Research & Planning Unit	Annually	0	1		1	
<b>Specific Objective 2.To manage forests to optimize their economical as well as ecological functions such as soil erosion control, climate regulation and biodiversity conservation in a sustainable manner</b>								
<b>Outcome 2.1 50 % National Forests resources are sustainably managed</b>								
1. District Forestry Plan for 20 districts with financial constraints and serious soil erosion were supported to implemented their FMP	NAFA activity report	Research & Planning Unit	Annually	0	20		10	10
2.506 authorities and technicians were trained in the use of the DFMP	NAFA activity report	Field Program Unit	Annually	0	506	506		

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
3. The updated forestry map at 1/25 000 is available in multiple copies	NAFA activity report	Research & Planning Unit	Annually	0	1	1		
4. A forestry statistical database (analytical) and construct a web site are available	NAFA activity report	Field Program Unit	Monthly	0	1	1		
5. National forestry protection plans for 26 financial weak district are developed and available	NAFA activity report	Field Program Unit	Annually	0	26	26		
6. Provincial commissions and local evaluation committees on forestry management have been formed.	NAFA activity report	Field Program Unit	Annually	0	35	35		
7. The forestry protection staff are equipped with technical tools for efficient fight against damages to national forests	NAFA activity report	Field Program Unit	Annually	0	1	1		
<b>Outcome 2.2 All state forests are identified and plans to properly managed them are in place</b>								
1. National state forests are identified and categorized	NAFA Study report	Field Program Unit	Annually	0	30	30		
2. The maps for state forests available	NAFA activity report	Field Program Unit	Annually	0	30		30	
3. Exploitation plans for state forests are available	NAFA activity report	Field Program Unit	Annually	0	30		30	

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
<b>Outcome 2.3 Value addition infrastructure to wood and non-wood products has increased by 5 times</b>								
1.National needs in wood processing and the required treatment infrastructure are known	NAFA Study report	Research & Planning Unit	Annually	0	1	1		
2. A modern wood processing and treatment unit is established in Northern and Western Provinces respectively.	NAFA activity report	Research & Planning Unit	Annually	0	2		1	1
3.Private sector operators are sensitized on reusing wood by-products, taking into account the gender aspect	NAFA activity report	Field Program Unit	Annually	0	30	15	15	
4.Partnership with private sector to start 2 value addition units to bamboo products exists	NAFA activity report	Research & Planning Unit	Annually	1	3	1	1	
<b>Outcome 2.4 Wood energy consumption has been reduced</b>								
1.Both current wood energy consumption vs. available resources as well as appropriate alternative energy sources are known	NAFA Study report	Research & Planning Unit	Annually	0	1	1		
2. 20 demonstration units on improved techniques for charcoal making are set up	NAFA activity report	Research & Planning Unit	Quarterly	0	20		10	10

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
3. 100 families per sector have been supported to use improved energy stoves.	NAFA activity report	Research & Planning Unit	Quarterly	-	41,600	13,867	13,867	13,866
4. Incentives to technologies that save wood energy are given	NAFA activity report	Research & Planning Unit	Annually	0	30		15	15
<b>Outcome 2.5 National forestry products are competitively traded nationally, regionally and internationally</b>								
1. A list of exportable and importable tree species is available	NAFA Study report	Research & Planning Unit	Annually	0	1		1	
2. 10 wood by products recycling are operational	NAFA activity report	Research & Planning Unit	Annually	-	10		5	5
3. 5 investors with viable export forest products have been given incentives	NAFA activity report	Field Program Unit	Annually	0	5		5	
<b>Specific Objective 3. 3. To provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors</b>								
<b>Outcome 3.1 Extension agents have the capacity and commitment to schools and farmers involvement in Forestry and agro forestry</b>								
1. One school and one youths organization per sector has been supported to grow and conserve trees	NAFA activity report	Field Program Unit	Quarterly	0	812	272	270	270

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
2.100 farmers/ private sector in every district have been trained to promote farm forestry	NAFA activity report	Field Program Unit	Quarterly	-	3,000			
3.4 farmers groups/sector have been supported to establish and manage tree nurseries for commercial purposes	NAFA activity report	Field Program Unit	Quarterly	-	1664	555	555	554
4.10 field front-line extension agents are sent for training abroad on forestry and agro forestry	NAFA activity report	Field Program Unit	Annually	-	10	3	4	4
5.70,000 brochures on forestry and agro forestry have been disseminated to farming households	NAFA activity report	Field Program Unit	Annually	-	70,000	70,000		
<b>Outcome 3.2 Forestry and agro forestry research is strengthened</b>								
1. ISAR is every year supported to research into the development of suitable agro forestry seeds	NAFA activity report	Research & Planning Unit	Annually	0	3	1	1	1
2. 4 scientists in forestry and agro forestry are sent for training every year	NAFA activity report	Research & Planning Unit	Annually	-	12	4	4	4
3. Non-native adaptability tests /providence trials are carried in each district	NAFA activity report	Research & Planning Unit	Quarterly	-	30		30	

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
4. Universities /higher institutions of learning are involved into forestry and agro forestry research twice a year	NAFA activity report	Research & Planning Unit	Annually	0	6	2	2	2
<b>Outcome 3.3 Regional and International cooperation in forestry strengthened</b>								
1.NAFA participates in international and regional fore on forestry and agro forestry three times per year	NAFA activity report	Research & Planning Unit	Annually	0	9	3	3	3
2.3 international treaties on forestry and agro forestry are ratified and implemented	NAFA activity report	Research & Planning Unit	Annually	-	3	1	1	1
3. A joint regional on forestry and agro forestry projects is operational.	NAFA activity report	Research & Planning Unit	Annually	0	1		1	
4.ICRAF and AFRENA activities scaled up projects in Rwanda	NAFA activity report	Research & Planning Unit	Annually	2	4		2	
<b>Outcome 3.4 Women and Youths are involved in forestry income generating activities</b>								
1.Women and youths at cell level are sensitized to plant wood lots for sale	NAFA activity report	Field Program Unit	Quarterly	-	2148	716	716	716



Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
2.10 youths per district are trained in skills and apprenticeship in wood processing	NAFA activity report	Research & Planning Unit	Quarterly	-	300	100	100	100
3. Women and youths are organized to plant and manage trees in at least 100 public institutions per district every year	NAFA activity report	Field Program Unit	Quarterly	0	300	100	100	100
<b>Outcome 3.5 Forestry sector Institutional, policy and legal framework is strengthened</b>								
1. NAFA is supported every year for effective service delivery	NAFA activity report	Field Program Unit	Quarterly	3	3	1	1	1
2. Stakeholder planning and M& E meetings are held at provincial and District levels every year	NAFA activity report	Finance Unit	Annually	0	105	35	35	35
3. Local NGOs and CBOs are encouraged to promote community forestry	NAFA activity report	Field Program Unit	Annually	-	30	10	10	10
4. Stakeholders in the forestry sector are known and constitute a forum.	NAFA Study report	Field Program Unit	Annually	0	1	1		
5 Institutions are sensitized on reforestation and agro-forestry policy and laws	NAFA activity report	Research & Planning Unit	Annually	-	30	30		

Indicators	Means of Verification	Responsible for data collection	Frequency of data collection	Baseline in 2009	Target 2012	Target 2009-2010	Target 2010-2011	Target 2011-2012
6. A new legislation is elaborated and the existing one is updated.	NAFA activity report	Research & Planning Unit	Annually	-	2	1	1	
7. Internal Regulations and procedures manuals are elaborated	NAFA activity report	Finance Unit	Quarterly	-	2	2		
<b>3.6 Information management system for better planning and M&amp;E for forest management is improved.</b>								
National statistics on forest plantations, management and wood products are collected and disseminated annually starting 2010/11.	NAFA activity report	Research & Planning Unit	Annually	0	2		1	1
A study on the contribution of the forest sector to the national economy is done and available	NAFA activity report	Research & Planning Unit	Quarterly	0	1	1		
The WISDOM model is used in conducting forest inventory and mapping.	NAFA activity report	Research & Planning Unit	Annually	0	2	1	1	1
Carry out an agro forestry inventory ( to assess the potential of agro forestry in the country)	NAFA activity report	Research & Planning Unit	Quarterly	0	1		1	
NAFA website is developed and regularly updated	NAFA activity report	Research & Planning Unit	Annually	0	1		1	1

**Key**

- 0 Baseline does not exist
- 1. Baseline is not known but what is available is too low to affect setting the target

#### 4 Financing the forestry strategic plan

This is a summarized budget for the forestry strategic plan for 2009-2012. It is an estimate of both the recurrent and the development expenditure. The unit cost for program activities is an average value for the budget period. The funding for this strategic plan is expected to come from both the Government of Rwanda and development partners. The detailed budget is indicated in Annex I.

**Table 7: 3 Year budget for the Forestry Sector**

Program /S program	Outcome	2009 / 2010 (Frw)*1000	2010 / 2011 (Frw)*1000	2011 / 2012 (Frw)*1000	3Year Total (Frw)*1000
<b>Sustainable forest development and management</b>		<b>3,920,463,186</b>	<b>5,242,403,186</b>	<b>6,236,243,372</b>	<b>15,429,109,744</b>
<b>1. Increase forest and agro forestry resources to meet the national needs in timber and non-timber forest products &amp; services for public, personal and commercial uses</b>		<b>3,143,443</b>	<b>3,099,603</b>	<b>3,530,063</b>	<b>9,803,109</b>
	46,390 ha of government and peoples land have been planted with trees by 2012	1,608,703	1,553,703	1,553,703	4,746,109
	85 % of agricultural land is planted with agro forestry trees	1,498,100	1,468,100	1,850,600	4,816,800
	All planted forestry and agro forestry seeds and other germplasm are improved types	36,640	60,000	115,760	213,200
	Eco-taxes, trusts and environmental fees are operational	0	17,000	10,000	27,000
<b>2. Manage forests to optimize their economical as well as ecological functions such as soil erosion control, climate regulation and biodiversity conservation in a sustainable manner</b>		<b>378,000</b>	<b>1,565,900</b>	<b>1,190,000</b>	<b>3,133,900</b>
	50 % National Forests resources are sustainably managed	160,000	875,000	150,000	1,185,900
	All state forests are identified and plans to properly managed them are in place	60,000	120,000	600,000	780,000
	Value addition infrastructure to wood and non-wood products has increased by 5 times	40,000	275,000	20,000	335,000
	Wood energy consumption has been reduced	98,000	165,000	245,000	508,000,000

	National forestry products are competitively traded nationally, regionally and internationally	20,000	130,000	175,000	325,000
<b>3. Provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors</b>		<b>519,020,000</b>	<b>696,900,000</b>	<b>736,180,000</b>	<b>1,952,100,000</b>
	Extension agents have the capacity and commitment to schools and farmers involvement in Forestry and agro forestry	110,520	111,900	246,180	468,600
	Forestry and agro forestry research is strengthened	19,000	49,000	49,000	117,000
	Regional and International cooperation in forestry strengthened	15,500	3,500	3,500	22,500
	Women and Youths are involved in forestry income generating activities	95,000	87,500	87,500	270,000
	Forestry sector Institutional, policy and legal framework is strengthened	229,000	235,000	225,000	689,000
	Information management system for better planning and M&E for forest management is improved.	50,000,000	210,000,000	125,000,000	385,000,000

## 5 Annex

### Annex 1: MTEF for the Forestry Sector (See Excel File)

Programme	Strategies	Outcome	Activities	U.P	Qty	Budget frw	Time frame		
							2009-10	2010-11	2011-12
<b>Total Forest Development and Management</b>						<b>15,429,109,744</b>	<b>3,920,463,186</b>	<b>5,242,403,186</b>	<b>6,236,243,372</b>
<b>1.1 To increase forest and agroforestry resources to meet the national needs in timber and non-timber forest products &amp; services for public, personal and commercial uses</b>						<b>10,343,109,744</b>	<b>3,023,443,186</b>	<b>2,979,603,186</b>	<b>4,310,063,372</b>
	1.1 Increase area and diversify the national forest resources					<b>4,746,109,000</b>	<b>1,608,703,000</b>	<b>1,553,703,000</b>	<b>1,553,703,000</b>
	48,390 ha of government and peoples land have been planted with trees by 201					<b>4,746,109,000</b>	<b>1,608,703,000</b>	<b>1,553,703,000</b>	<b>1,553,703,000</b>
			1. Carry out an inventory of spaces to reforest	30,000,000	1	<b>30,000,000</b>	30,000,000		
			2. Carry out a study to identify appropriate species for planting in the identified areas.	30,000,000	1	<b>30,000,000</b>	10,000,000		
			3. Develop specific reforestation and afforestation programmes	25,000,000	1	<b>25,000,000</b>	15,000,000		
			4. Develop 416 nurseries (198,325 trees each) with a total of 83,502,000 trees	35	83,502,000	<b>2,922,570,000</b>	974,190,000	974,190,000	974,190,000
			5. Reforest and forest the identified areas, at least 44,792 ha per year	15	83,502,600	<b>1,252,539,000</b>	417,513,000	417,513,000	417,513,000
			6. Prepare, plant and maintain 2000 ha with trees every world tree day.	45	10,800,000	<b>486,000,000</b>	162,000,000	162,000,000	162,000,000
	1.2 Promote growing of multi-purpose /agroforestry trees in all farming systems					<b>5,356,800,744</b>	<b>1,378,100,186</b>	<b>1,348,100,186</b>	<b>2,630,600,372</b>
	85 % of agricultural land is planted with agro forestry trees					<b>5,356,800,744</b>	<b>1,378,100,186</b>	<b>1,348,100,186</b>	<b>2,630,600,372</b>
			1. Carry out a study to identify suitable agro forestry trees for planting in various farming systems	30,000,000	1	<b>30,000,000</b>	<b>30,000,000</b>		
			2. Support farmers in establishing and maintaining 2,148 nurseries each with 71,229 trees	1,675,978	2,148	<b>3,600,000,744</b>	<b>900,000,186</b>	900,000,186	1,800,000,372
			3. Mobilise and support farmers to plant agro forestry trees in their farming system	10	153,000,000	<b>1,530,000,000</b>	<b>382,500,000</b>	382,500,000	765,000,000
			4. Reward the best farmer practising agro forestry in every sector.	100,000	1,248	<b>124,800,000</b>	<b>41,600,000</b>	41,600,000	41,600,000
			5. Hold monthly meetings with land centre and RADA to ensure that land titles are offered to farms with plants as the law requires	2,000,000	36	<b>72,000,000</b>	<b>24,000,000</b>	24,000,000	24,000,000
	1.3 Avail improved seeds and other germplasm					<b>213,200,000</b>	<b>36,640,000</b>	<b>60,800,000</b>	<b>115,760,000</b>
	All planted forestry and agro forestry seeds and other germplasm are improved types					<b>213,200,000</b>	<b>36,640,000</b>	<b>60,800,000</b>	<b>115,760,000</b>
			1. to buy and distribute 10 tons of high quality forestry and agro forestry seeds suitable to Rwanda	10,000	10,000	<b>100,000,000</b>	20,000,000	25,000,000	55,000,000

			2. to support ISAR to use biotechnology to multiply agro forestry and forestry seedlings.	30,000,000	1	30,000,000		15,000,000	15,000,000	
			3.Train and support 4 farmers in every sector to engage in agro forestry and forestry seeds business	50,000	1664	83,200,000	16,640,000	20,800,000	45,760,000	
		<b>1.4 Promote and support innovative financing mechanisms such as eco-taxes, trusts, payment for environmental services, and carbon trade</b>					<b>27,000,000</b>		<b>17,000,000</b>	<b>10,000,000</b>
		Eco-taxes,trusts and environmental fees are operational					<b>27,000,000</b>		<b>17,000,000</b>	<b>10,000,000</b>
			1.Develop paper for cabinet discussion and approval	2,000,000	1	2,000,000		2,000,000		
			2.Develop the necessary legislation	5,000,000	1	5,000,000		5,000,000		
			3. Develop a project for carbon trade , eco-taxes, trusts and environmental services	20,000,000	1	20,000,000		10,000,000	10,000,000	
		<b>2.To manage forests to optimize their economical as well as ecological functions such as soil erosion control,climate regulation and biodiversity conservation in a sustainable manner</b>					<b>3,133,900,000</b>	<b>378,000,000</b>	<b>1,565,900,000</b>	<b>1,190,000,000</b>
		2.1.Improve management of forest resources towards sustainability					<b>1,185,900,000</b>	<b>160,000,000</b>	<b>875,900,000</b>	<b>150,000,000</b>
		50 % National Forests resources are sustainably managed					<b>1,185,900,000</b>	<b>160,000,000</b>	<b>875,900,000</b>	<b>150,000,000</b>
			1.to support the implementation of the District Forestry Plan for 20 districts with financial constraints and serious soil erosion	15,000,000	20	300,000,000		150,000,000	150,000,000	
			2.to train 506 authorities and technicians in the use of the DFMP	150,000	506	75,900,000		75,900,000		
			3. to update and multiple the forestry map at 1/25 000 by the end of 2010	20,000,000	1	20,000,000	20,000,000			
			4. to establish a forestry statistical database (analytical) and construct a web site by 2010	50,000,000	1	50,000,000	50,000,000			
			5.to develop a national forestry protection plan for 26 financial weak district	25,000,000	26	650,000,000		650,000,000		
			6.to form provincial commissions and local evaluation committees on forestry management	2,000,000	35	70,000,000	70,000,000			
			7.to equip the forestry protection department for efficient fight against damages to national forests	20,000,000	1	20,000,000	20,000,000			
		2.2 Develop management plans for classified forests					<b>780,000,000</b>	<b>60,000,000</b>	<b>120,000,000</b>	<b>600,000,000</b>
		All classified forests are identified and plans to properly managed them are in place					<b>780,000,000</b>	<b>60,000,000</b>	<b>120,000,000</b>	<b>600,000,000</b>
			1.To identify and characterise classified forests	2,000,000	30	60,000,000	60000000			
			2.To localise and map classified forsts	4,000,000	30	120,000,000		120,000,000		
			3. Elaborate exploitation plan for classified forests	20,000,000	30	600,000,000			600,000,000	
		2.3.Promote value addition technologies to wood and non wood forest products					<b>335,000,000</b>	<b>40,000,000</b>	<b>275,000,000</b>	<b>20,000,000</b>
		Value addition infrastructure to wood and non-wood products has increased by 5 times					<b>335,000,000</b>	<b>40,000,000</b>	<b>275,000,000</b>	<b>20,000,000</b>
			1.to carry out a study to identify national needs in wood processing and the required treatment infrastructure	25,000,000	1	25,000,000	25,000,000			
			2.to establish one modern wood processing and treatment unit per province	250,000,000	1	250,000,000		250,000,000		

			3.to sensitise the private sector operators on reusing wood by-products, taking into account the gender aspect	1,000,000	30	<b>30,000,000</b>	15,000,000	15,000,000		
			4.to support private sector to add value to bamboo products	15,000,000	2	<b>30,000,000</b>		10,000,000	20,000,000	
	<b>2.4 Reduce wood energy consumption</b>						<b>508,000,000</b>	<b>98,000,000</b>	<b>165,000,000</b>	<b>245,000,000</b>
	Wood energy consumption has been reduced						<b>508,000,000</b>	<b>98,000,000</b>	<b>165,000,000</b>	<b>245,000,000</b>
			1.to study, identify and disseminate appropriate alternative energy sources to wood energy	10,000,000	1	<b>10000000</b>	10,000,000			
			2.to promote the use of improved techniques for charcoal making by setting 20 demonstration units	10,000,000	20	<b>200000000</b>	20,000,000	50,000,000	130,000,000	
			3. to mobilise and Support 100 families per sector to use improved energy stoves.	50,000	4,160	<b>208,000,000</b>	68,000,000	70,000,000	70,000,000	
			4.to provide incentives to technologies that save wood energy	3,000,000	30	<b>90000000</b>		45,000,000	45,000,000	
	<b>2.5 Foster and facilitate national trade and export of forestry products</b>						<b>325,000,000</b>	<b>20,000,000</b>	<b>130,000,000</b>	<b>175,000,000</b>
	National forestry products are competitively trade nationally,regionally and internationally						<b>325,000,000</b>	<b>20,000,000</b>	<b>130,000,000</b>	<b>175,000,000</b>
			1.To carry out a study to identify and develop exportable and importable tree species	25,000,000	1	<b>25,000,000</b>	20,000,000	5,000,000		
			2.To promote and support existing wood by products recycling to 10 economic operators	25,000,000	10	<b>250,000,000</b>		125,000,000	125,000,000	
			3.To provide incentives to 5 investors with viable export forest products	10,000,000	5	<b>50,000,000</b>			50,000,000	
	<b>3.To provide institutional support to forestry actors in order to improve the quality of products and services rendered by these actors</b>						<b>1,952,100,000</b>	<b>519,020,000</b>	<b>696,900,000</b>	<b>736,180,000</b>
	<b>3.1. Scale-up forestry extension and education to schools and other communities</b>						<b>468,600,000</b>	<b>110,520,000</b>	<b>111,900,000</b>	<b>246,180,000</b>
	Extension agents have the capacity and commitment to schools and farmers involvement in Forestry and agro forestry						<b>468,600,000</b>	<b>110,520,000</b>	<b>111,900,000</b>	<b>246,180,000</b>
			1.To mobilise and support one school and one youths organisation per sector to grow and conserve trees	100,000	812	<b>81,200,000</b>	16,240,000	20,300,000	44,660,000	
			2.To sensitise and build capacity of 100 farmers/ private sector in every district to promote farm forestry	50,000	3,000	<b>150,000,000</b>	30,000,000	37,500,000	82,500,000	
			3.Support 4 farmers groups/sector to establish and manage tree nurseries for commercial purposes	100,000	1,664	<b>166,400,000</b>	33,280,000	41,600,000	91,520,000	
			4.to send 10 field front-line extension agents for training abroad on forestry and agro forestry	5,000,000	10	<b>50,000,000</b>	10,000,000	12,500,000	27,500,000	
			5.Develop and disseminate 70,000 brochures to farming households on forestry and agroforestry	300	70,000	<b>21,000,000</b>	21,000,000			
	<b>3.2. ISAR and Universities are involved in forestry and agro-forestry research and their capacity strengthened</b>						<b>117,000,000</b>	<b>19,000,000</b>	<b>49,000,000</b>	<b>49,000,000</b>
	Forestry and agro forestry research is strengthened						<b>117,000,000</b>	<b>19,000,000</b>	<b>49,000,000</b>	<b>49,000,000</b>
			1.to support ISAR to research into the development of suitable agro forestry seeds	30,000,000	1	<b>30,000,000</b>	10,000,000	10,000,000	10,000,000	



			2. to support the training of 4 scientists in forestry and agro forestry every year	5,000,000	12	<b>60,000,000</b>		30,000,000	30,000,000	
			3.to carry out non-native adaptability tests /providence trials, one at each district	500,000	30	<b>15,000,000</b>	5,000,000	5,000,000	5,000,000	
			4. Lobby universities /higher institutions of learning to do research in forestry and agro forestry	1,000,000	12	<b>12,000,000</b>	4,000,000	4,000,000	4,000,000	
		<b>3.3. Strengthen regional and international cooperation in forestry</b>					<b>22,500,000</b>	<b>15,500,000</b>	<b>3,500,000</b>	<b>3,500,000</b>
		<b>Regional and International cooperation in forestry strengthened</b>					<b>22,500,000</b>	<b>15,500,000</b>	<b>3,500,000</b>	<b>3,500,000</b>
			1.Participate in international and regional fora on forestry and agro forestry three times per year	1,000,000	9	<b>9,000,000</b>	3,000,000	3,000,000	3,000,000	
			2.Ratify and implement international treaties on forestry and agro forestry	500,000	3	<b>1,500,000</b>	500,000	500,000	500,000	
			3. Develop and implement joint regional forestry and agro forestry projects.	10,000,000	1	<b>10,000,000</b>	10,000,000			
			4.Negotiate with ICRAF and AFRENA to scale up projects in Rwanda	1,000,000	2	<b>2,000,000</b>	2,000,000			
		<b>3.4. Promote women and youth involvement in forestry activities that generate income</b>					<b>270,000,000</b>	<b>95,000,000</b>	<b>87,500,000</b>	<b>87,500,000</b>
		<b>Women and Youths are involved in forestry income generating activities</b>					<b>270,000,000</b>	<b>95,000,000</b>	<b>87,500,000</b>	<b>87,500,000</b>
			1.To sensitise women and youth to plant for sale at least wood lot at umudugudu level	100,000	1500	150,000,000	50,000,000	50,000,000	50,000,000	
			2.to train 10 youths per district in skills and apprenticeship in wood processing	300,000	300	90,000,000	30,000,000	30,000,000	30,000,000	
			3. Organise women and youths to plant and manage trees in at least one public institution per district every year	1,000,000	30	30,000,000	15,000,000	7,500,000	7,500,000	
		<b>3.5. Strengthen the institutional, policy and legal framework of forestry activities</b>					<b>689,000,000</b>	<b>229,000,000</b>	<b>235,000,000</b>	<b>225,000,000</b>
		<b>Institutional, policy and legal framework strengthened</b>					<b>689000000</b>	<b>229000000</b>	<b>235000000</b>	<b>225000000</b>
			1. Support NAFA functioning for to effective service delivery	390,000,000	1	<b>390,000,000</b>	130,000,000	130,000,000	130,000,000	
			2.Hold stakeholder planning and M& E meetings at provincial and District levels every year	1,000,000	105	<b>105,000,000</b>	35,000,000	35,000,000	35,000,000	
			3.Encourage and Support Local NGOs and CBOs to promote community forestry	5,000,000	30	<b>150,000,000</b>	50,000,000	50,000,000	50,000,000	
			4.Carry out an inventory of all stakeholders in the forestry sector and constitute a forum.	4,000,000	1	<b>4,000,000</b>	4,000,000			
			5 To sensitise institutions on reforestation and agro-forestry policy and laws	1,000,000	30	<b>30,000,000</b>	10,000,000	10,000,000	10,000,000	
			6.Elaborate new legislation and update the existing ones	5,000,000	1	<b>5,000,000</b>		5,000,000		
			7.Elaborate regulations and procedures manuals	5,000,000	1	<b>5,000,000</b>		5,000,000		

	<b>3.6. Improve information management system for better planning and M&amp;E for forest management</b>				<b>385,000,000</b>	<b>50,000,000</b>	<b>210,000,000</b>	<b>125,000,000</b>	
	Information mgt system for better planning and M&E for forest management is improved.				<b>385,000,000</b>	<b>50,000,000</b>	<b>210,000,000</b>	<b>125,000,000</b>	
			1. Collect and disseminate national statistics on forest plantations, management and wood products	100,000,000	2	200,000,000		100,000,000	100,000,000
			2. Conduct a study on the contribution of the Forestry Sector to the National Economy	60,000,000	1	60,000,000	40,000,000	20,000,000	
			3. Make use of the WISDOM model and conduct forest inventory and forest mapping	25,000,000	2	50,000,000	10,000,000	20,000,000	20,000,000
			4. Carry out an agro forestry inventory ( to assess the potential of agro forestry in the country)	45,000,000	1	45,000,000		45,000,000	
			5. Develop and update regularly a website for NAFA	30,000,000	1	30,000,000		25,000,000	5,000,000