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MINISTRY OF NATURAL RESOURCES

Rwanda National Forest Policy 2017

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1 INTRODUCTION

The Rwanda forest sector has historically played a very significant role in the lives and livelihoods of its population. It will continue to do so. Access to up-to-date and coherent *2017 National Forest Policy (NFP)*, *Forest Sector Strategic Plan 2017-2022 (FSSP)* and *National Forest Management Plan 2017-2026 (NFMP)* documents is crucial to ensure the intended development and management of this sector. The 2017 NFP is part of that package – and the highest ranking member of that package.

To avoid repetition, not all issues are equally elaborated upon in each of the three documents referred to in the above package. The comprehension and usefulness of any one of NFP, FSSP, or NFMP documents increases to the extent the user becomes familiar with the others.

1.1 Relationship amongst Rwanda forest governance documents

The National Forest Policy governs the development and management of the country's forest resources. As the highest level governance document guiding activities in the forest sector, it directly influences the content of both the FSSP and NFMP. In turn, these last two documents directly shape the activities and outcomes that overall shape the sectors development.

1.2 Rationale for reviewing and revising an NFP

The rationale for reviewing the NFP is to ensure the policies in place are still relevant. The rationale for revising the NFP is to replace those that aren't with others that are. If policy targets remain unmet it may implicate that they be carried-over into the revision, perhaps not much changed. If new objectives and targets are not yet reflected, then they are added.

Private and household investors and other stakeholders base decisions on government policies – which they assume reflect its intentions and targets for the development of the sector. Some policies remain applicable under almost any circumstances. Others become less relevant as issues evolve – or fail to evolve – towards intended outcomes.

A review of earlier NFPs shows that they were all comprehensive and focused on critical issues threatening Rwanda's forest resources. Other observations include that their implementation fell short of their targets; the issues addressed have since become more complex and need greater levels of rehabilitation and relatively greater financial inputs to resolve. Additionally, the institutional, management and technical capacity required to solve today's issues exceeds what was needed in the past – and will require upgrading to meet this task. These issues have been noted and are themselves addressed in this new policy

Overall, the policy statements reinforced or introduced in the 2017 NFP are meant to steer forest sector development along trajectories towards government's highest-level vision and objectives for this sector. These were designed to secure Rwanda's long-term sustainable economic development by maximizing the potential role and contribution of the forest sector to that process.

2 NATIONAL DEVELOPMENT FRAMEWORK

The content and scope of policy governing forest resources are influenced and shaped by characteristics of those resources and factors that drive the development and management of those resources.

How forests are managed depends a lot on species types, volume per hectare, age class, site productivity, growth & yield patterns, harvest cut regimes (e.g. coppice, clear cut, etc.), susceptibility to pest or climatic shocks, and also forest access road density and forest land ownership. It depends also on sector employment and income targets, product supply and demand balances, institutional, infrastructure and professional capacities, as well as financing and administrative capacities.

Rwanda's forest sector governance and regulatory framework guides the resource's development towards achieving agreed national level targets and outcomes. Though MINIRENA and RNRA have the most direct immediate authority over forest resources – they carry out their mandate in a setting where other ministries also have targets somehow linked to Rwanda's forest sector. Amongst these are:

1. MINIAGRI (RAB) – regarding agroforestry issues
2. MININFRA – regarding alternatives to forest fuelwood; land use planning; resettlement, urbanization; water and sanitation
3. MINICOM (RDB, ORTPN) – regarding sustainable industrial development, cooperative development; tourism and wildlife conservation
4. IMNEDUC – regarding promoting research
5. MINECOFIN – integrating NRM and environment into sector planning towards effective EDPRS2 implementation.

2.2 National development programmes

The forest sector will continue to play a role in Rwandan household and commercial activities for the foreseeable future. That role includes direct contributions to household livelihoods – which for some are their major or sole source of incomes. Benefits to farmers and others of forests' role in maintaining land productivity and water supplies is also clear, but perhaps clearest where the loss of forests results in the loss of those benefits.

From a more macroeconomic perspective, the role of forests in contributing to employment, taxes, import substitution, value-added production is clear – though their eventual magnitude remains to be established.

The above roles implicate an intricate relationship between development targets for the forest sector and national development targets overall. National targets for economic, social, and resource development are at the core of Rwanda's "Vision 2020", its "EDPRS2" (launched by Parliament in 2013), its "National Strategy for Climate Change and Low Carbon Development" (GGCRS, 2011), and its "NBSAP" (revised April 2015). As a consequence, as with other sectors' policies, the forest sector policy acknowledges and directly contributes to those targets.

2.2.1 Vision 2020

Vision 2020 added several topics to the cross-cutting issue on natural resources, environment and climate change, namely:

- explicitly identifying climate change as a major environmental problem – and mitigation as mandatory
- depletion of biodiversity
- degradation and pollution of swamps, wetlands and waterways
- a national forest cover target of 30% of Rwanda's land mass

- a national target of 10.3% of Rwanda’s land mass protected to maintain biodiversity.

Broader Vision 2020 targets relating directly to the forest sector overall are:

- improved livelihoods through job creation
- increased value-added and revenue from forest utilization
- enhancing the balance of benefit streams towards sustainable yield and ecological conservation

Vision 2020 has a pronounced focus on private sector participation in the economy. Forest products and fuelwood production are identified as areas to consider. Less directly, the sector is also linked to modernising agriculture and increasing its productivity and revenues. Forest management contributes to this primarily through sound soil and water conservation practises – and through promotion of agroforestry species and practises.

Another Vision 2020 forest sector target is a reduction in energy from forest biomass to 50% of total household energy consumed – and to significantly increasing the percentage of “green charcoal” within overall charcoal production. Both can contribute to reduce population pressure on national forests, and to increasing the efficiency of utilization of those resources.

2.2.2 EDPRS2

The **Economic Development and Poverty Reduction Strategy** (EDPRS2, 2013-2018, May 2013, 172 pages) stresses environment and climate change as one of its five important cross-cutting issues. Major focus of attention has become:

- mainstreaming environmental sustainability into productive and social sectors
- reducing vulnerability to climate change.

The strategy identifies the sector’s role as a contributor to GDP – and specifies an increase in forest sector jobs from 0.3% to 0.5% by 2017. Its other well-known forest sector targets are a country-wide forest cover of 30% by 2018, woody biomass reduced to 50% of national energy consumption by 2020, improved kilns producing 75% of Rwanda’s charcoal by 2017 and 10.25% of the country managed as protected area.

2.2.3 GGCRS2011

The vision for Rwanda’s **Green Growth and Climate Resilience** strategy (National Strategy for Climate Change and Low Carbon Development, GGCRS, Kigali, 2011, 100 pages) is “a climate-resilient low-carbon economy by 2050”.

Among the GGCRS’s Guiding Principles is “Sustainability of the Environment and Natural Resources”. The strategy formulates an action programme for sustainable forestry, agroforestry and biomass energy. Sub-programmes deal with:

- enhancing forest germplasm
- enhancing silviculture practices
- improving forest management for degraded forest resources
- a joint Forest / Agriculture strategy for agroforestry.

As strategic objectives, the GGCRS identifies:

- development of Green Industry and services
- sustainable land use and water resources management
- reducing risk to disasters – including to climate change

2.2.4 Other issues linked to forest sector development policy

As statements of government's medium to long-term intentions, the 2017 Rwanda National Forest Policy is formulated to demonstrate those intentions without generating an exhaustive list of individual policies to address each issue separately.

Many immediate and cross-cutting issues and targets can be represented in a policy statement formulated to cover a comprehensive range of issues. These may eventually attract a separate course of action and resolution in a strategy statement – all of which anyway derive from the higher level policy statements.

Other issues seem or are somehow linked to forest or forest land resource issues – but do not have a direct forest management related resolution – one that RNRA could act on within the remit of its authority and mandates. Some such issues are anyway lent support through policies that do fall with that authority.

2.3 International development programmes

Around the globe, forests play a fundamental and irreplaceable role in addressing and resolving contemporary and critical environment and natural resource related issues. Forests therefore rightly attract attention and deliberation in many international organisations and fora. It often appears with a very visible role in conventions, treaties and programmes to support agreed targets, common approaches and collective funding to resolve these issues.

Amongst those with which Rwanda has aligned parts of its own natural resource and environmental and other development objectives are the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP).

2.3.1 UN post-2015 development agenda (SDG)

The United Nations summit for the adoption of the post-2015 development agenda was held from 25 to 27 September 2015 in New York and drafted a resolution “**Transforming our world: the 2030 Agenda for Sustainable Development**”. Closer to home, Rwanda will host the Africa Sustainable Development Goals Centre – which is expected to drive innovation and research towards achievement of the SDGs in Africa.

At a recent conference on solutions to achieving SDGs (Kigali, April 2016) MINECOFIN correctly observed that SDGs cannot be implemented in isolation and that they require inputs from all sectors. Rwanda's forest policy and the strategic plan that derives from it will be in full harmony with the 2030 Agenda for Sustainable Development.

Moving the sector's forest and forest land management practises towards a more sustainable levels will of itself almost guarantee that the SDGs in anyway linked to the sector are ultimately fully reflected in the Rwanda Forest Sector Strategic Plan 2017-2022 that derives from this NFP. Formulation of that FSSP will include a gap analysis¹ to identify where forest sector goals do not already resonate with the Agenda's Global Goals.

Goal 15 deals with protection, restoration and promotion of sustainable management of forests. Significant resources from all sources and at all levels to finance sustainable forest management shall be mobilised. Goal 13 "Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss" requires that climate change measures should be integrated into national policies, strategies and planning.

2.3.2 UNFCCC (COP 21)

The **United Nations Framework Convention on Climate Change (UNFCCC)** implemented its 21st *Climate Change Conference of Paris* in 2015 (COP21) and the 11th Meeting of the Parties (CMP11) of Kyoto Protocol. On 12th December, 2015, the parties signed the agreement to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels. In this course, countries in development will be supported to contribute to mitigation of climate change and to adapt to its impacts. Countries are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation (REDD+), and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Rwanda's average temperatures have increased above global average since 1970 and are anticipated to continue to do so – as are the incidence of increased rainfall intensity, flooding and droughts. The threatening impacts on personal security and infrastructure, land and water resources and in particular on agriculture productivity would increase.

Rwanda is developing a set of indicators to measure vulnerability to climate change impacts and reducing its contributions and building resilience to climate change are key priorities as reflected in EDPRS II and the GGCR strategy.

2.3.3 Bonn Challenge (2011)

The **Bonn Challenge** (2011) is a global aspiration to restore 150 million hectares of the world's deforested and degraded lands by 2020. Rwanda made its pledge to the Bonn Challenge to restore 2 million hectares in 2011. This represents the proportionally the highest national commitment to that challenge.

The greatest opportunity for meeting Rwanda's commitment may reside within agriculture landscapes. The critical importance of agriculture to households and the national economy and

¹ Of the 160 SDGs, analysis has shown that 62% are already either fully or partially reflected in Rwandan SSFs.

the potential co-benefits associated with “agroforestry” tree species and practises constitute a major impetus for this approach. Elsewhere it has been described as the most wide-reaching restoration opportunity in Rwanda.

Other options for meeting its Bonn Challenge restoration targets include natural regeneration taking place in forest reserves and other protected forests, as well as stream and wetland riparian areas, and target planting to stabilize or restore steep sloped land. These will all be reflected in outcomes in sectors strategic plan

2.3.4 *IBRD Natural Capital Accounting*

Rwanda is one of the World Bank’s core implementing countries for Natural Capital Accounting. The value of non-market services will be determined in two priority landscapes: Rugezi wetland, Mukura and Nyungwe National Parks. This will underpin the central role of natural capital in economic output and the importance of the environmental services of the forests.

Through the application of natural capital accounting mechanisms Rwanda will be able to produce a “balance sheet” of the natural wealth and assets that underpin the generation of “incomes” – which is already accounted for in GDP accounts. The full contribution of forests that arise from services such as land, water and habitat conservation, carbon sequestration and air filtration become obvious only when they are recorded in natural capital accounts.

“Natural capital accounts can provide detailed statistics for better management of the economy, like accounts for the sectoral inputs of water and energy, and outputs of pollution that are needed to model green growth scenarios. Land and water accounts can help countries interested in increasing hydro-power capacity to assess the value of competing land uses and the optimal way to meet this goal. Natural capital accounts can help countries rich in biodiversity design a management strategy that maximizes the contribution to economic growth while balancing trade-offs among ecotourism, agriculture, subsistence livelihoods and other ecosystem services like flood protection and groundwater recharge.”²

The use of natural capital accounts was promoted by UN agencies as long ago as the early 1990’s. It has since evolved into, amongst others, a UN Statistical Commission of the System of Environmental and Economic Accounts”. The World Bank entry for Rwanda into this discipline could be a pivotal move towards a fully informed environment and natural resources management decision making tool that starkly illuminates the consequence of ecosystem degradation and biodiversity loss to national development goals. The FSSP acknowledges this approach in activities formulated to implement PES, payments for ecosystem services – and elsewhere.

2.3.5 *International Conventions*

Rwanda ratified the **Convention on Biological Diversity (CBD)** and has developed a **National Biodiversity Strategy and Action Plan (NBSAP)** in this context. Improvement of environmental stability for natural ecosystems and restoration of ecosystems are two major objectives of the NBSAP. Target 6 states: “By 2020, fishing and aquaculture, agriculture and forestry are managed sustainably, legally and taking into consideration ecosystem specificities

² <http://www.worldbank.org/en/topic/environment/brief/environmental-economics-natural-capital-accounting>

to ensure biodiversity conservation.” Further on, the main causes of national biodiversity loss shall be addressed by mainstreaming biodiversity conservation in the decision making process across all governmental, private and civil society’s development programs.

Rwanda ratified the **Convention on International Trade of Endangered Species (CITES)** by presidential decree n°211 of 25 June 1980 to control trade with endangered plant and animal species and the **Ramsar Convention** dealing with wetland especially as habitat for waterfowl.

Rwanda prepared a readiness proposal to Reducing Emissions from Deforestation and Forest Degradation (REDD+) as a national effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. "REDD+" goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The 2017 policy addresses concern of the international community by stressing enhancement of current forest management and reforestation of every available land in order to reduce risks of desertification, erosion, climate change, biodiversity loss and degradation of water catchments.

2.3.6 Regional Conventions

This 2017 NFP policy statements are consistent with the African Union Agenda 2063 (**Africa We Want**) which is a “**global strategy to optimize use of Africa’s resources for the benefits of all Africans**”. Agenda 2063 serves as a source of inspiration for development of national and regional sustainable development plans. The agenda calls for urgent actions on climate change and the environment, implementation of the Programme on Climate Action in Africa, including sustainable forest management programmes. Destruction of forests in a country has impact on the whole region; but in order to curtail such risks, the present policy provides for collaboration with neighbouring countries in protecting trans-boundary forest ecosystems.

Moreover, Rwanda is represented in various forums and regional organisations related to the development of forest resources, climate change and energy supply like **Commission des Forêts d’Afrique Central (COMIFAC)**, dealing with conservation, sustainable and concerted management of forest ecosystems), **East African Community (EAC)**, among others having an **EAC Climate Change Policy (EACCP)**, **New Partnership for Africa’s Development (NEPAD)** dealing with climate change and natural resources and the **Nile Basin Initiative** (a regional platform for multi stakeholder dialogue, information sharing as well as joint planning and management of water and related resources in the Nile Basin).

2.4 Guiding Principles

The underpinnings for formulating policy includes guiding principles that influence their content and their eventual implementation. These are presented in Annex 1. They build on legal, political and development priorities, but also on environmental, technical, social and commercial factors that have become embedded in the culture and expectations of Rwandan society.

3 SECTOR DEVELOPMENT FRAMEWORK

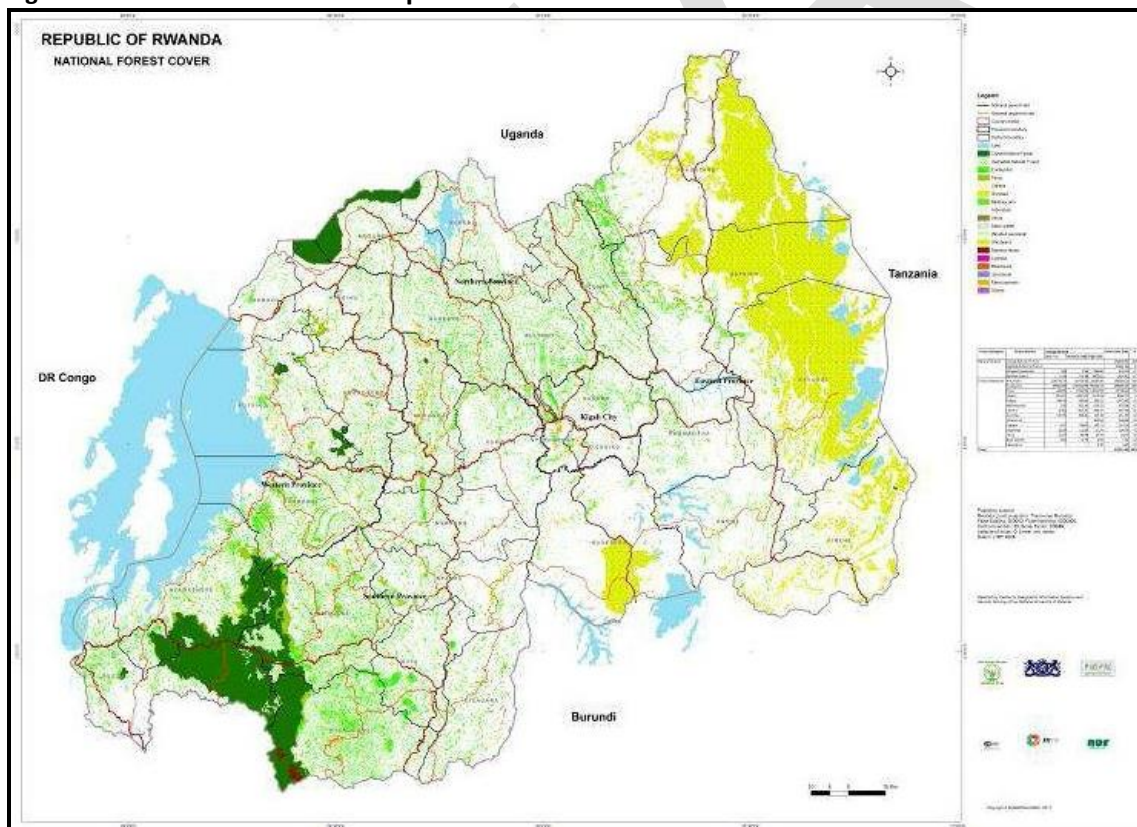
3.1 National forest endowment

The starting point for forest policy formulation is understanding the actual resource base and the value streams derived from it – and their potential contribution to various Rwandan development targets.

Up-to-date forest resource figures are available from a national forest inventory completed mid-2016. Forest cover at the time of the 2010 NFP formulation stood at 553,098 hectares – representing 21% of Rwandan territory³. Aggressive efforts to halt forest loss and increase forest cover have been underway since 2007 – including banning timber felling in indigenous forests and state plantations and through an aggressive tree-planting programme. By 2015 forest cover had increased to 29.2 of the territory⁴.

Though not recent, the forest cover map shown below (see Figure 1) provides a snapshot of Rwanda’s national forest resources⁵ and remains reasonably representative of at the distribution of forests types across the country.

Figure 1. Rwanda forest cover map 2008.



³ 2010 National Forest Policy, Section 2.2, page 2.

⁴ Rwanda State of Environment and Outlook Report 2015, Chapter 2 Forests, 2.1 Status and trends, page 60.

⁵ Plans to compile an updated forest cover map by 2017 have been commissioned.

Rwanda's forests are mostly classified as mountain forest, tree plantations, and scattered stands and individual trees in Shrub land /savannah zones – and scattered stands of agroforestry species.

The 2015 NFI (National Forest Inventory) classifies Rwandan forests into three categories or “strata” as:

- TIF (Trees Inside Forests)
- TOFs (Trees Outside Forests – shrub-land / savannah)
- TOFo (Trees Outside Forests – other) mostly small woodlots, riparian and roadside linear forests, and scattered trees.

The distribution of Rwanda's forests into these strata demonstrates the marked difference in characteristics between these categories (see Table 1 below)

Table 1. General forest stand characteristics⁶ by strata

Stratum	N/ha	G/ha (m ² /ha)	Vt/ha (m ³ /ha)	Area (ha)	Volume (m ³)	Stock/capita (m ³)
TIF	144.6	5.28	50.03	255,672	12,791,778	1.22
TOFs	57.7	1.81	9.86	142,649	1,406,351	0.13
TOFo	25.14	0.90	7.05	1,456,630	10,272,751	0.98

3.2 Forest livelihoods and economic contributions

Dependence on forest and forest land resources as a source of employment and incomes is highest for rural populations – but extends also to urban populations. NISR labour statistics reveal that rural areas, overall, have the highest employment rates and that the single largest component of that is in the forest, agriculture and fisheries sectors. Participants in each of these will recognize the key role of forest in maintaining the integrity of the soil and water regimes these sectors depend on.

Tourism is a growing industry in Rwanda – in 2013 generated almost US\$ 300 million⁷ – a significant portion from visits to mountain highlands to view Gorillas in their native forest habitats. The level of formally “Protected Areas” (PA) – including parks, forest reserves, and other globally significant areas) by 2012 had reached just over 10%. The PA designation has resulted in at least one park over doubling in size.

Forests generate direct cash income for households with otherwise limited opportunities. A report on Rwanda's biomass sector⁸ estimated that, for 2007, the value of firewood and charcoal added USD 122 million to national GDP (about 5%). Employment levels for forest plantations in 2015 reached almost 31,000 – and are projected to levels nearing 39,000 in 2016.

⁶ N/ha (trees / hectare), G/ha (basal area / hectare), Vt/ha (total volume / hectare), stock/capita (Volume / population (10.515,973 from 2014 census))

⁷ “State of Environment and Outlook Report 2015 Rwanda, Chapter 2 Forests, 2.1 Status and trendsnoy brightmaybenetwrok , page 60.

⁸ Biomass Energy Strategy (BEST) Rwanda, EUEI, GTZ, Marge, June 2009.

Subsistence farming dominates livelihoods in rural Rwanda. A population rising at 2.6% annually – and now at over 450⁹ persons per square kilometre (highest in Africa) – places unsustainable pressure on forests and forest land resources. This leads to conversion of ever more marginal lands, decreased slope stability, increased rubble and landslides, loss of productive top soils, and increased siltation and loss of water quality. Resolution of this situation must include improved agricultural productivity, increased non-farm wage earning jobs, strict enforced guidelines to protect existing soil and water resources.

Civil conflict led to dramatic decrease in forest cover – and then to increased demand for timber and construction materials for reconstruction in the immediate post-conflict periods. Overall forest cover declined by 65% from 1960 to 2000 – bringing a number of forest tree species to near extinction. Over recent years, forest plantations have brought forest cover levels very close to the 30% targeted in EDPRS2.

However, the use of forest by local populations is a very dynamic process and reaching a targeted level of forest cover is no assurance that it will be maintained. Rwanda's forests are scattered across 30 Districts – within which there have been estimated¹⁰ to be over 205,000 household plantations – of which 95% are less than .5 hectares in size – though with a combined area estimated at 37,650 hectares. Because of their relatively unregulated status, these receive minimal official intervention, though this may constitute a missed opportunity to “rationalize” their contributed to meeting Rwanda's forest products demand.

Improved management of plantation and all forests is also recommended to avoid recurrence of the excessive forest loss as experienced in the past. With the forecasted growth in the country's population, the severity and consequence of the loss of the household livelihoods and broader economic opportunities associated with forest cover loss would exceed that of earlier decades. The consequence of the loss of attendant ecological and social benefits would also be much more difficult to reverse.

3.2.1 Supply / demand imbalances

The implications of past demand for limited forest resources are well known. Each previous NFP identified the prevailing and still increasing wood supply/demand imbalance evident at the time of its formulation.

The 2004 NFP referred to a “wood shortage” for 2002, of 6,719,000 m³ – citing that 96% of Rwandans use wood as a major source of energy. A table in the 2010 NFP showing “Needs Sustained Yield of Wood during 1960 – 2009” showed a negative balance of 9,553,000 m³ for 2009. In each case it was not possible to determine the relative position of different forest products in the make-up of the demand figures – though the largest component was fuelwood.

Because of its enormous impacts, it is instructive to examine the biomass energy issue more closely. Using more specific data, the management team for the PAREFBE2 NFMP project has calculated (see Table 2 below) wood biomass energy deficiencies from 2009 to 2026. An absence of adequate time series data required making various assumptions regarding forest productivity and household and other fuelwood and charcoal consumption.

⁹ It was recorded as 315/km² in the 2004 NFP, as 387/km² in the 2010 NFP, and 491/km² in a recent World Bank.

¹⁰ “Biomass Energy Strategy (BEST) Rwanda, June 2009.

Table 2. Biomass (fuelwood, charcoal) imbalances 2009 to 2026

<i>Year</i>	<i>2009</i>	<i>2010</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>	<i>2025</i>	<i>2026</i>
<i>Supply</i>	3,388	2,539	2,182	1,772	6,210	698	680	664	671	694	698	745	690
<i>Demand</i>	4,801	5,393	5,552	5,712	5,876	6,041	6,210	6,382	6,557	6,734	6,914	7,097	7,282
<i>Difference</i>	-1,413	-2,854	-3,370	-3,940	-4,610	-5,343	-5,530	-5,718	-5,886	-6,040	-6,217	-6,352	-6,591

Continued fuelwood and charcoal are important to Rwanda for a number of practical reasons, including:

- Main source of energy for about 85% to 95% of households over the last ten years; not likely to change too significantly in even the 5 to 10 year medium-term
- Charcoal accounts for about 15% of household's primary fuel source – and is used by about 4% of rural households, but by about 50% in urban areas.
- Biomass is renewable, can be easily bartered, and expends no foreign exchange
- Alternative energy sources will remain relatively technically and financially inaccessible to most households for the foreseeable future.
- The biomass sector generates US\$ 120 to US\$ 150 million in economic activity in recent years – by some estimates approaching 5% of annual GDP.

Though the situation regarding biomass energy imbalances is critical, it is not without feasible solutions. Potential relief from the pressure of biomass imbalances will be difficult to achieved. There mechanisms available to do so are few and individually make on small gains in addressing the issue. Though none can yet to be seen to have been effectively implemented, they include:

- increasing yields¹¹ through productivity increases from improved planting stock
- eliminating losses in harvesting and transport
- replacing
- targeted fees taxation rates, encouraging greater application of “green charcoal” technologies
- demonstrating effective agroforestry techniques, to increase the extent of biomass raw material
- demonstrating and instigating incentives for using improved cooking stove (ICS)

3.3 Chronic forest sector development issues

A wide range of similar issues influencing forest sector development is repeated in both the 2004 and the 2010 NFPs. Each of the previous NFPs describes the status of more than a few critical issues that seem to prevail from one NFP term to the next. Each cites a few statistics

¹¹ Estimates vary, but in optimal conditions, yield increases appear possible

that demonstrate how some of these issues have worsened from one period to the next. And each then goes on to elaborate a policy to address once more how to resolve those issue.

Even today, issues from previous eras remaining relevant and have been addressed in the 2017 NFP.

Though the comprehensiveness of the last two formal NFPs is clear, and though each does identify and address a rather large collection of critical issues facing the sector, in neither case have these policies lead to what could be called a resolution of those issues.

3.3.1 Opportunities

Through a concerted effort of effective high-level planning and political commitment, in recent years Rwanda has had relatively high levels of economic growth. In various sectors it has demonstrated an ability for the types of transformations needed to increase those sectors contribution to the country's overall social and economic development.

The forest sector does feature attributes and opportunities favourable to the development of a productive and profitable forest and timber sector. These include:

1. Political will to manage natural resources sustainably
2. Overarching policies and strategies prioritise green development, biodiversity, climate change and afforestation/reforestation
3. Compliance with international conventions will lead to access to Green Climate Fund, REDD+, and other programmed funding sources
4. Environmental protection ranked among national priorities
5. Other sectors recognize significance of natural resources sector
6. Many sector policies, programmes and projects deal with environment, biodiversity, food security, energy, watershed management, land management or landscape and forest restoration with forestry as one of the key interventions
7. Fund for Environment and Natural Resources (FONERWA) exists
8. Government supports private-sector lead sector development
9. Demand for forest products and increasing
10. Increasing awareness of environmental services of forests and trees
11. FSSP and NFMP under revision or formulation to guide sector development
12. Integrated programmes of other sectors like landscape restoration, water resources management and agroforestry programmes involve afforestation, reforestation and forest rehabilitation

3.3.2 Challenges

The sector, however, also features a number challenges impeding efforts to increase viability, increase productivity and private sector participation – and its effort to increase overall contribution to national development targets.

Population pressure on forest resources leads to unsustainable utilization patterns and practises. It means stands are harvested prior to reaching their planned rotation age. It means trees are planted on marginal land where soils are less productive, slopes are less stable, water may be

scarce, and stand productivity is low. It means investments are difficult to justify because of relatively low returns.

Challenges that continue to seriously plague the forest sector today include:

1. Unsustainable and growing pressure on forest biomass energy – aggravated by insufficient ICS use, little use of “green charcoal” production techniques
2. Unregulated unsustainable forest exploitation
3. Uneven distribution of forest resources across the country
4. Limited capacity to manage and monitor very large number of small forest holdings
5. Districts with high percentage of public forest need more district level personnel
6. Low forest land productivity and annual increment growth
7. Relatively inadequate forest budgetary resources
8. Limited capacity to produce adequate volume and quality of seedlings.
9. Gaps in district level knowledge and technical capacity on forest restoration.
10. Low technology conversion and high waste in timber manufacturing
11. Excessive reliance on monoculture plantations
12. delays in harvesting low quality “at risk” over-mature stands
13. inadequate data collection on accurate forest harvest levels and use
14. limited available land for afforestation
15. inadequate support for promoting and increasing agroforestry species
16. inadequate capacity for providing forest extension services
17. absence of a functioning national forest research capacity
18. low levels of forest products “value chain” models and capacity to produce them
19. low levels of infrastructure to support the development of forest products manufacture
20. limited Incentives for the private forest sector investment
21. limited opportunities for viable larger scaled forest tenure arrangements

4 VISION & OBJECTIVES

4.1 *Vision*

Forest and forest land resources will be managed to play an integral role in supporting Rwanda’s goals for sustainable, green, low-carbon, climate resilient development to sustain and improve social security, liveable environments, economic prospects, and personal well-being of its present and future populations.

4.2 *Overall objectives*

The **overall objective** of the 2017 Rwanda National Forest Policy is to define, in concise statements, government’s medium to long-term intentions for the development and management of the country’s forest and forest land.

NFP “policy statements” collectively identify, at the highest authoritative level of intervention, forestry solutions to forestry issues – to the extent that those solutions can be formulated and implemented under the authority of the RNRA. Most of policy statements related directly

enhancing various capacities to equip and empower forest managers and others to ensure the establishment and sustainable use of forest and forest land resources to meet a variety of household and national level development targets.

The activities and outcomes in the strategy that is directly derived from NFP policy respond to the activities and outcomes required to meet the objectives of many non-forestry programmes somehow linked directly or indirectly to forest and forest land resources managed under the authority of RNRA.

4.3 Specific objective

The **specific objectives** of the 2017 NFP arise through the formulation of the Rwanda Forest Sector Strategic Plan 2017-2022 and appear in that document. Below, some of those are restated to crystalize concretely how policy statements lead to the outcomes necessary to meet the multiplicity and the detail present in a variety forestry and other targets to which Rwanda's forest are expected to contribute.

1. Increased levels of private sector participation in forest establishment, management and manufacturing activities
2. Incentives will be created for “restrictive competitive bidding” by bidders who demonstrate the highest level of efficient value-added, job creating, forest management, or other criteria to meet forest sector objectives
3. RNRA institution structure and operations professional and technical capacities are adapted & upgraded to the specific needs of managing Rwanda's forest
4. RNRA data systems, inventory, mapping, stand modelling, extension services are upgraded to support the needs of its professional and technical personnel in managing Rwanda's forest and forest land resources
5. Rwanda's capacity to conduct or manage forest research is enhanced
6. National tree seedling production capacity is fully identified, upgraded and increased
7. National tree planting capacity is identified, upgraded and increased
8. RNRA has well established capacity to monitor seedling production, planting, survival rates and stand tending to ensure targeted stocking levels at harvest age
9. Biomass forests will be managed according to standards & practices specifically designed to ensure appropriate species selection, maximum growth and yield, and minimal harvest losses
10. Biomass energy efficiency is improved by granting more favourable terms harvesting permits to enterprises demonstrating improved efficiency in consumption of harvested material.
11. RNRA engages proactively with other ministries or agencies in any way responsible for improving biomass energy consumption efficiency or reducing consumption of biomass for energy
12. Rwanda's natural forest will be preserved
13. Forest and forest land resources will be actively managed to conserve & enhance land and water productive capacities and life support systems
14. Payment for ecosystem (PES) services will be formulated and applied to resources user to internalize the social cost of indiscriminate degradation, to discourage unsustainable use, and to fund cost of ecosystem conservation and rehabilitation.
15. Planning, management and benefit sharing are gender equity and responsive

16. Forest development planning will be responsive to stakeholder's interest, claims, and aspirations for local forest resource development.
17. Increasing forest cover on agriculture land.
18. Land productivity and economic "returns" are increased and degradation is mitigated and reversed.
19. Diversity and value added of joint forest-agriculture crops increases; new product market opportunities and related value-added increase.

4.4 Specific targets

The 2017 NFP continues to facilitate achievement of targets set respectively in EDPRS 2 and the Vision 2020. The total land surface area for Rwanda is estimated as 2,381,747 ha. According to Vision 2020 forest cover shall be increased to 30% of its territory (714,524 ha). Table 3 shows the development of Rwanda's forested area since 2010.

Table 3. Development of forest area since 2010

Year	Plantations (ha)	Percentage of area under land	Natural forest (ha)	Percentage of area under land	Total forest area (ha)	Percentage of area under land
2010	334,465	14.0	283,128	11.9	617,593	25.9
2011	353,961	14.9	283,128	11.9	637,089	26.7
2012	379,165	15.9	283,128	11.9	662,293	27.8
2013	390,507	16.4	283,128	11.9	673,635	28.3
2014	404,047	17.0	283,128	11.9	687,175	28.9
2015	413,274	17.4	283,128	11.9	696,402	29.2

5 POLICY STATEMENTS

The policy statements in the *2017 Rwanda National Forest Policy* are consistent with Rwanda's overall economic development goals and programmes. They are consistent also with the particular circumstances immediately affecting the forest sector – and with the circumstances affecting RNRA's role in managing that sector. Addressing this latter item is deemed fundamental to effectively realizing the accumulated forestry and other goals and specific targets now falling within RNRA's authority.

The descriptions of key goals, programmes, and circumstances that have been described earlier are deemed valid now and for the immediate and medium-term future which the policy will influence.

The policy statements must be viewed as high-level governance instruments that clearly state the medium to long-term intentions of government for the sector to which they apply. They inform strategies and national level development or management plans for those same sectors. They must be broad enough to be applicable to a wide range of circumstances to which a

specific policy may apply. They must be focused enough to be able to identify the specific issues and decision to which they apply. They must be flexible enough to accommodate unforeseen evolution of an issue into directions that may not have been fully anticipated. The 2017 NFP has made every effort to do all of the above.

The seven “Policy Statements” of the *2017 Rwanda National Forest Policy* appear in Table 4 on the page immediately following.

ENVIRONMENTAL

Table 4. Policy Statements – Rwanda 2017 National Forest Policy

No.	Policy Focus	Policy Statement
Policy Statement 1	Institutional and professional capacity	The capacity of Rwanda’s forest sector institutions and personnel will be enhanced and maintained to match the requirements of managing the country’s forest and forest land resources.
Policy Statement 2	Forest establishment & rehab capacity	Rwanda’s capacity to produce forest tree seedlings to meet forest land afforestation targets, post-harvest reforestation targets, and degraded forest land restoration targets will be fully developed.
Policy Statement 3	Private sector forest development participation	Private sector actors will be encouraged to increase their business activities in Rwanda’s forest sector including from the point of establishing forests up to the transformation and sale of forest products.
<i>Error! Reference source not found.</i>	Woody biomass energy management	Applicable forest licensing, production and transformation practices and techniques will be to applied to increase forest biomass fuel efficiency & decrease biomass fuel consumption will be applied.
Policy Statement 5	Biodiversity & Ecosystem conservation	Biodiversity and ecosystems resources and values will be maintained and enhanced in accordance with national and international programmes and targets to which Rwanda is committed
Policy Statement 5	Participatory forest management	Procedures will be implemented to support participation and decision making in forest planning and management by all relevant stakeholders to ensure proper benefit sharing from proposed forest development activities.
Policy Statement 6	Agroforestry	Appropriate agroforestry techniques and tree species will be implemented to contribute to increasing overall forest cover and enhancing agriculture land productivity.

Features of each policy statement – such as main drivers, intent and potential strategy focus and outcomes – are identified in the following narratives.

5.1 *Institution, infrastructure, professional and technical capacity*

Policy Statement 1 **The capacity of Rwanda’s forest sector institutions and personnel will be enhanced and maintained to match the requirements of managing the country’s forest and forest land resources.**

5.1.1 Forest management capacity policy drivers

The forest sector in Rwanda will always depend on human resources availability to carry out forest management and other implementation activities, research, policy development and planning activities. Low capacity is one of those temporary challenges that may be addressed in the medium and long run. The government has already undertaken actions aiming at building forest institutions. Forest institutions must be supported and continuously strengthened in order to accomplish their mission. Not only government institutions are involved in the forest sector but also the private sector, the civil society and the decentralised entities. At all sectors and levels capacity building is needed.

5.1.2 Strategy focus & outcomes

1. Establishing training facilities for forest technicians and workers;
2. Extend in-house human resources capability to include training-needs-assessments (TNA) for individuals and entire departments
3. Create opportunities for external contract service providers for forestry department continuing education and technical upgrading courses and programmes
4. Create “in-service” continuing education or technical upgrading department and external contract extension services (coordinate by central level) ensuring permanent on-the job training of local (decentralized level) forest technicians, workers and cooperatives in:
 - a. the design and daily implementation of forest management plan
 - b. in the development of agroforestry;
 - c. in development and management of cooperative
 - d. in improvement of efficiency of wood transformation processes
 - e. in improvement of efficiency of supply chains of wood based technologies
5. Supporting districts, sectors, villages and civil society groups to develop and implement forestry activities;
6. Ensure significant reinforcement (high skill forest lecturers recruitment/training, forest equipment, logistic means) of CAVM and EAVFO, through MINEDUC/WDA collaboration, to ensure continuous updating and improvement of forest curricula with a focus on emerging subjects and global developments;
7. Liaising with universities in Rwanda/East Africa and elsewhere for training of forestry professionals and for research cooperation
8. Reviewing mandates of institutions involved in the forest sector with a view on strengthening coordination, facilitating integration of sectoral concerns and strategies and avoiding duplication, competition, resource wastage and conflict;
9. Create harmony with policies and plans of related sectors to establish joint activities (e.g. in case of agroforestry or wood based energy) and to avoid overlapping or even contradictory activities.

5.2 *Increasing forest cover establish & forest land rehabilitation capacity*

Policy Statement 2 **Rwanda’s capacity to produce forest tree seedlings to meet forest land afforestation targets, post-harvest reforestation targets, and degraded forest land restoration targets will be fully developed.**

5.2.1 *Forest establishment policy drivers*

Degradation of forest watersheds and soils is overall at unacceptable levels. In some areas it is critical and will require intensive efforts to reverse. Overall the main source of forest land degradation is unsustainable excessive levels of harvesting.

The consequences of forest degradation can be severe and include loss of sites for plantation and other forestry, decreased site quality and productivity levels, loss of soil and water protection service, loss of biodiversity and wildlife habitat, and reduced climate change resilience. The risk of increased extent and acceleration of degradation is higher where degradation has already commenced – with the cost of rehabilitation also proportionately increasing.

5.2.2 *Strategy focus & outcomes*

1. Raising awareness about forests’ and trees’ importance for water supply (quantity and quality) and about options for watershed management
2. Identifying, mapping and assessing the condition and status of major watersheds in Rwanda;
3. Rehabilitating degraded forests in the watersheds
4. Developing regulations and guidelines for managing gallery forests along lakeshore, riverbanks, and transportation and other “corridors”
5. Developing a programme to establish and rehabilitate lakeshore and riverbank forests
6. Developing educational material and mobilising the population to protect watersheds by tree planting;
7. Coordinating efforts of integrated approaches of related sectors like water and agriculture;
8. Developing schedule for payment of environmental services.

5.3 *Private sector participation in forest management and sector development*

Policy Statement 3 **Private sector actors will be encouraged to increase their business activities in Rwanda’s forest sector including from the point of establishing forests up to the transformation and sale of forest products.**

5.3.1 *Private sector forestry policy drivers*

Government's policy for economic development includes encouraging and supporting the private sector to assume lead roles in forest sector development. A Public Private Sector Dialogue is in place to facilitate increased activity by private interests in the sector.

Because they provide a direct source of income, some forest sector activities do make essential (but not necessarily large) contributions to the local and national economy. These activities usually revolve around household or small enterprise based activities such as fuelwood, charcoal, poles, and other unprocessed "service wood" products – and unprocessed roundwood as raw material for furniture and implement manufacture. Others – such as timber manufacturing, are usually larger based operations and minimally represented in Rwanda. Tenured access to a predictable annual volume of round-wood is usually a prerequisite to attract medium to larger sized operators to these timber processing activities.

Other incomes are generated from NTFPs and from recreation and tourism. These depend not on timber volumes – but on the conservation of soil, water, ecosystem integrity, and biodiversity of forest and forest land resources. Increased involvement of the private sector in seed and seedling production activities – and planting and stand tending is also open to the private sector.

The Government of Rwanda is committed as well to instigating PES (Payment for Environmental Services) to compensate the forest sector for its essential contribution to public welfare.

Governments intention through this policy statement is to increase the aggregate contribution of the above activities to national GDP.

5.3.2 Strategy focus & outcomes

1. Create and pilot contracts for private sector access to forests for roundwood harvesting; may or may not include requirement for establishment of timber manufacturing facilities
2. Create and pilot contracts for forest sector for seed collection, seedling nurseries, planting, stand thinning, forest inventory, management plan preparation, etc.) activities.
3. Actively facilitate aggregation of individual woodlots into economically viable FMUs (Forest Management Units)
4. Create private sector contracts for design and construction of forest hauling and skid roads
5. Link access to sustainably managed productive forests to efficient forest products manufacturing and supply chain activities
6. Wood-based industries development, linked to forest management plan ensuring sustainable and regular provision of stock dedicated to each type of product
7. Establishing legal mechanisms and developed technical tools (Simplified Forest Management Plan for Forest Management Unit) to enable the private sector to invest and manage public forests;
8. Creating forest tenure mechanisms and criteria – in consideration of increased private sector involvement in industrial plantation development;
9. Awarding forest tenures (licenses, leases, etc.) on a competitive basis in order to foster transparency and market based mechanisms

10. introduce innovative financing mechanisms through a Support Programme for the forest sector – including incentives for rehabilitation of degraded or non-productive forest land sites
11. Ensure data collection and analysis for an adequate M&E of the sector through FMES, including update of the forest cover, periodic national and district forest inventory and surveys
12. Create private sector forestry advisory services; establish networks of inter-sector management and technical expertise
13. Encouraging investment in non-timber forest products business;
14. Facilitating funding from international agreements and programmes like REDD+;
15. Regulate and certify green charcoal technologies and users
16. Vigorously support improved biomass energy efficiency
17. Through FFS approach, facilitate establishment and good management of farmers' cooperatives/organization to be involved in the development of agroforestry (production of quality seedlings, agroforestry tree planting and management, etc.)

Developing a transparent fee and tax system that creates incentives for wood processors to add value to their products.

5.4 Forest biomass energy supply management

Policy Statement 4 Applicable forest licensing, production and transformation practices and techniques will be to applied to increase forest biomass fuel efficiency & decrease biomass fuel consumption will be applied.

5.4.1 Biomass energy policy drivers

Estimates of the percentage of household energy provided by forest biomass till range from 85% to 95%. In some areas almost 100% of household's fuelwood or charcoal as the main cooking fuel.

At current population growth levels, it is difficult to foresee a time when the still rising demand for fuelwood and charcoal can be met. Rwanda's population growth rate and relative land scarcity will continue to aggravate this problem.

There is limited scope for increasing biomass output. Land for plantation forestry is scarce. Opportunities for increase biomass production are incremental and could arise from improved forest management, rehabilitation of degraded areas, improving site productivity, increase planting of trees outside of forests and in agroforestry sites.

Improved recover rates when harvesting fuelwood or when producing charcoal contributes to some increase in supply – with perhaps the greatest gains arising from broader use of improved charcoal production technologies.

Overall, improved energy efficiency may yield the most significant gains in energy output from a given volume of biomass – arising mostly through application of improved cook stoves. Working

with other relevant Ministries on identifying and piloting technologies and sources of alternative household energy sources would also relieve pressure on forest biomass resources.

5.4.2 *Strategy focus & outcomes*

1. Managing all forests to increase their productivity – including establishing / rehabilitating forest plantations on degraded / non-productive forest lands
2. Promoting agroforestry to increase wood production;
3. Increasing extension services capacity to deal with forest bioenergy issues and approaches
4. Empowering in particular rural poor citizens and improving their livelihoods through green economy energy activities such as the One Cow Programme
5. Implementation of a taxation, licensing and regulatory framework that makes more efficient all the steps of the charcoal/wood energy supply chains
6. Strengthening the cooperation of all the concerned ministries to promote efficient production and use of biomass and value addition on all steps of the supply chain
7. Promoting establishment of mixed cooperatives of wood and charcoal producers for efficient and coordinated management on all steps of the value chain
8. Ensure that MININFRA is promoting alternative energy sources to reduce wood demand
9. Through the platform of the TWG biomass of MININFRA, ensure the linkage and synergy between forest policy/action plan and energy policy/action plan
10. Developing joint strategies with energy and other sectors in the context of “Green Growth Strategies”
11. In collaboration with MININFRA and relevant agencies, implement research and pilot programmes on technologies and practises suited to decreasing forest biomass energy.

5.5 *Biodiversity and ecosystem conservation and restoration*

Policy Statement 5

Biodiversity and ecosystems resources and values will be maintained and enhanced in accordance with national and international programmes and targets to which Rwanda is committed

5.5.1 *Ecosystem conservation policy drivers*

Virtually all of the programmes discussed above as part of Rwanda’s international development context have a pronounced focus on some aspect of ecosystem management and integrity or biodiversity conservation. To support these, the 2017 Rwanda NFP and 2017-2022 Forest Sector Strategic Plan demonstrate that Rwanda’s forest are being managed and enhanced according to practices that ensure compliance with the criteria under which these international programmes are meant to be funded and implemented.

5.5.2 *Strategy focus & outcomes*

1. Natural forests constitute a unique reserve of large tracts of relatively intact forest land and should be subject to restricted use and management practises to preserve their status as such.
2. Healthy productive ecosystems must be protected to ensure they continue to provide a range of irreplaceable services – including, for example, life support systems to human and other populations, water and air filtration / purification, pollinator insects, beneficial pest/predator relationships, traditional medicinal and other household consumables, etc.
3. Rwanda has a unique level of biodiversity that fosters a thriving and growing tourist and recreation sector – much of which is integrally linked to its forest and forest land resources
4. Supporting park and nature reserve buffer zone communities in developing community management and or utilization approach of soil, water and forests resources, to learn lessons and promote succeed experiences elsewhere

5.6 *Participatory forest management and benefit sharing*

Policy Statement 6 **Procedures will be implemented to support participation and decision making in forest planning and management by all relevant stakeholders to ensure proper benefit sharing from proposed forest development activities.**

5.6.1 *Participation policy drivers*

There is a wide range of goods and services provided by forests, at local, national and global level. Divergent claims with different interests and objectives creates the potential for conflicts amongst users. To deal effectively with this, broad-based participatory and inclusive processes have to be used when forest programmes and plans are developed and implemented.

Social responsibility of forest owners and users is essential. Benefits have to be distributed in a way that motivates the population to maintain the forests. All groups shall have the possibility to ensure their rights and shall have equal opportunities to markets, jobs and participation in decision-making.

5.6.2 *Strategy focus & outcomes*

1. Integrating permanent representative stakeholder participation mechanisms into existing forest development and management planning procedures;
2. Strengthening forestry stakeholder consultation mechanisms and support in the current decentralisation process;
3. Awareness raising on the multiple functions of forests and the possibilities of participatory and integrated forest management;
4. Developing transparent procedures for conflict resolution;
5. Capacity building of forest sector governmental, NGO, and CSO groups to execute participatory planning in general and participatory forest management in particular;

6. Strengthening forest sector participatory planning linkages with other sectors;
7. Strengthening forest-dependent interest groups in networking and creating “platforms” for accessing and sharing knowledge policies, laws, strategies, and development processes, platforms or forums to shape policies, plans or strategies;
8. Create community based tenures to assign user rights for public forests the local population
9. Ensure benefits for the part of the local populations that is not directly involved in forest management (e.g. spending part of the revenues of forestry for social purposes).

5.7 *Agroforestry*

Policy Statement 7

Appropriate agroforestry techniques and tree species will be implemented to contribute to increasing overall forest cover and enhancing agriculture land productivity.

5.7.1 *Agroforestry policy drivers*

At a national level – and even in very concrete ways at household levels – reliance on trees and forests to sustain national and local economic and ecological balances is unavoidable. Livelihoods hinge in sometimes numerous ways on timber and non-timber forest products from household woodlots, boundary and other row trees and even single trees grown for a specific purpose – such as enhancing soil fertility, maintaining soil and water integrity, and reducing food insecurity.

Where uses conflict, the choice may be between an agriculture or forestry approach to land management. Mainstreaming agroforestry in agricultural policies and strategies and strengthening cooperation with the agricultural sector would yield significant benefits. More directly, advice from an accessible and knowledgeable forestry extension service could have huge positive impacts on enhancing agroforestry benefits at all levels.

5.7.2 *Strategy focus & outcomes*

1. Create a separate RNRA strategy for Agroforestry – to the extent to which the forest sector has a direct role in – or can support – this type of forestry
2. Enact and enforce forest practises to support conserving agricultural life support systems and protect agricultural biodiversity
3. Disseminating best practices in agroforestry in all farming systems in Rwanda through Farmers’ Field School (FFS) / ‘Twigire Muhinzi’ approaches (which already involves over half of Rwanda’s farmers
4. Include indigenous multi-purpose agroforestry tree species in national forest nursery programmes
5. Promoting rehabilitation of areas with multi-purpose trees in rangeland areas

6. Improve management of roadside /riverside /lakeside agroforestry trees through promotion and contracts between local authorities and resident farmers – including benefit sharing
7. Developing training programmes and field manuals for RNRA agroforestry extension agents
8. Supporting farmer in establishing local agroforestry tree species nurseries
9. Intensifying research into locally appropriate agroforestry technologies

6 ADDITIONAL SECTOR IMPLICATIONS

6.1 Implementing policy

Policy is implemented through strategic plans and management plans that are formulated to translate policy into action. The *Forest Sector Strategic Plan 2017-2026* that is currently being formulated updates strategies, identifies outcomes, and prescribes activities that are designed to achieve the intent of the 2017 NFP. In turn, Rwanda's first National Forest Management Plan, that is also currently being prepared, more specifically identifies activities designed to realize the outcomes formulated in the 2017-2026 FSSP.

6.2 Financial implications

Both sides of the accounting ledger are impacted by the 2017 NFP.

The costs and benefits associated with the implementation of the 2017 NFP arise from implementing the strategy and management plans that translate the policy into activities and verifiable outcomes.

The vision of the 2017 is replete with expectations of increase economic prosperity for households and enterprises, increased efficiency and value-added forest sector production and that of agriculture and other activities where forestry affects those, and decreased loss of natural capital values and the benefit streams that flow from them.

There is also an underlying implication that compliance of the forest sector with the criteria of external multi and bilateral donor funder programmes will increase the prospects of involvement and funding through those programmes

On the expenditure side, most of the cost associated with the strategic plan activities implementing the policy relate to training, studies, office and field level operational infrastructure (including hard and soft IT and web systems), fixed and recurrent costs of additional personnel, and publishing and dissemination. These are elaborated more fully in strategy and plan documents.

6.3 Legal implications

It is not anticipated that any need to update forestry legislation will arise from the policies and strategies currently being revised.

6.4 Private sector implications

The intended outcome of the 2017 NFP includes increased participation of private sector actors across almost the full range of forest sector activities. It is anticipated that incentives will be created to attract participants from households, community level cooperatives, and small and medium sized business enterprises. Efforts will be made to identify and disseminate potential opportunities in the following sector activities:

- Tree seed collection
- seedling production, transport and planting
- forest stand tending and harvesting
- timber production
- biomass forest stand establishment
- NTFP harvest and processing

Because of limited private sector activity in the above, the eventual levels of participation are difficult to assess and will remain inconclusive until such time as piloting these new ventures starts producing results.

6.5 Social implications

Overall, the most significant outcome of the 2017 NFP is the long-term enhancement, sustainable management, and conservation of forest and forest land resources for present and future populations – which would otherwise not have been an assured outcome.

A further outcome of the policy is the increased level of social cohesion, economic security, and personal well-being potentially arising from increased levels of forest sector economic activity, ecosystem integrity and services, and capacity to deal with climate change threats and shocks.

Annex 1: Guiding Principles for the formulation and implementation of Rwanda forest policy

1. **Contribution to national economy:** The contribution of the forest and timber sector to the national economy will be increased promoting value addition on all steps of the supply chain starting from efficient forest management via transport of wood products to efficient timber processing and sophisticated manufacturing of timber end products.
2. **Livelihoods enhancement:** Improvement of livelihoods and fighting poverty shall be a major goal in all strategies and actions in the forest sector.
3. **Integrated approaches:** As key components of landscapes forests shall be managed in an integrated way to achieve the multi-functional goals of landscape and watershed management. Coordination of management of all types of land use is essential.
4. **Sustainable forest management:** All forest and tree resources in Rwanda shall be managed to yield sustainable streams of social, economic and ecological goods and services.
5. **Biodiversity conservation:** Reserves, forests and tree plantations shall be managed in ways that improve biodiversity and habitats for wildlife.
6. **Private sector involvement:** There will be a systematic phasing in of the private sector to play the dominant role especially in forest management and forest products processing, the public sector retaining only the regulatory function, research and quality assurance.
7. **Non-timber forest products:** Forests shall be managed to deliver products beyond woody material like nuts, seeds or basic substances for medicine.
8. **Forest management planning:** Management of forests shall be in accordance with approved management plans to achieve objectives stated therein, irrespective of ownership.
9. **Commercialisation of forestry activities:** Forestry operations shall be undertaken in a business-manner, with a sharp focus on result-based management. In this context, the government will create incentives for the private sector to invest in wood processing and value-addition to forest products at all steps of the supply chain.
10. **Climate change:** Rwanda's high vulnerability to climate change makes it necessary to pursue integrated approaches with related sectors like agriculture, water and energy. The importance of forests and trees in the context of climate change has to be mainstreamed.
11. **Improved wood energy supply chain** (charcoal making process, cooperative establishment and recognition, improve rules and regulation of the value chain, ICS (wood gasifier) dissemination in rural area, etc.)
12. **Agroforestry:** Agroforestry shall be mainstreamed and use multi-purpose species delivering wood, fodder and fruits and fixing nitrogen. The focus shall be on species diversity including both native and exotic species.
13. **Protection function:** Forests with special functions like protection of villages and infrastructure against landslides and of wetlands against siltation shall be managed with priority on these functions. Clear cutting is not allowed.
14. **Forest research:** To the extent practicable, key decisions on forest management shall be supported by fundamentals of forest science, buttressed by appropriate knowledge emanating from research.

15. **Stakeholder involvement and partnerships:** All key stake-holders in forestry at various levels (national, provincial, district and community) shall be involved in decision-making about issues that may affect them.
16. **Decentralised governance:** Classified forests shall be managed in accordance with decentralised governance prevailing in Rwanda through the “Performance Contract” modality.
17. **Compensation of forest cover loss:** Forest cover losses due to construction of roads, power lines, dams etc. have to be compensated by afforestation at other places.
18. **Gender and equity:** Action to redress gender inequalities and disadvantaged groups shall be integrated in all forest management plans.
19. **International obligations:** All strategies and actions in the forest sector shall internalise forest-related international and regional conventions, agreements and protocols; transboundary cooperation has to be pursued in case of ecosystems, landscapes and watersheds extend over borders of neighbouring countries.
20. **Payment for environmental services:** The numerous services have to be honoured by the society, especially if there are restrictions on forest management for the environmental functions. Polluters and users of forests shall be responsible for paying for the full environmental and social costs of the damage done to the natural environment as a result of their activities.
21. **Natural forests:** The few remaining natural forests shall be preserved, rehabilitated and surrounded by buffer zones. Natural forest as the ecosystems with highest biodiversity shall not be converted to areas for other land use.
22. **Financing:** The Government of Rwanda will make available funds from international programmes for the development of the sector. In the mid-term the forest sector shall be self-sufficient. The GoR will support this process with research, enhancement of forest education and (temporary) financial incentives.
23. **Education:** well-educated forest personnel are essential. Foresters in practice shall have a close link to the forest education institutions to bring in their experiences to enhance the curricula. Forest research and education institutions shall work closely together to assure that the latest research results are spread quickly. Forest education institutions shall play a key role not only in educating young professionals but also in further training for the forest sector.