

REPUBLIC OF THE GAMBIA



National Forest Action Plan(NFAP)
2019 – 2028

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Executive summary

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Abbreviations and Acronyms

ANRP	Agriculture and Natural Resource Policy
CBFFM	Community-based Forest Fire Management
CBA	Cost Benefit Analysis
CBED	Community based Enterprise Development
CBM	Community Based Management
CBOs	Community Based Organizations
CCSF	Community Controlled State Forest
CEPA	Community Education and Public Awareness
CF	Community Forestry
CFMAs	Community-based Forest Management Associations
CFSVA	Comprehensive Food Security and Vulnerability Analysis
CPA	Community protected Areas
CPF	Collaborative Partnership on forest
CRR	Central River Region
CSA	Climate Smart Agriculture
CSO	Civil Society Organizations
CSP	Country Strategic Plan
DoF	Department of Forestry
DPWM	Department of Parks and Wildlife Management
DWR	Department of Water Resources
EbA	Ecosystem Based Adaptation to Climate Change Project
FAO	Food and Agriculture Organization of United Nations
FLR	Forest Landscape Restoration
GBA	Greater Banjul Area
GBOS	Gambia Bureau of Statistics
GDP	Gross Domestic Product
GEAP	Gambia Environment Action Plan
GFMC	Gambia Forest Management Concept
GFP	Gambia Forest Policy
GHG	Green House Gas
GNAIP	Gambia National Agricultural Investment Programme
GOTG	Government of The Gambia
HDI	Human Development Index
HR	Human Resource
HRD	Human Resource development
IFFM	Integrated Forest Fire Management
IPCC	Intergovernmental Panel on Climate Change
JFPM	Joint Forest Park management
LGA	Local Government Area
LRR	Lower River Region
M&E	Monitoring and Evaluation
MA&D	Market Analysis and Development
MDG	Millennium Development Goal
MDI	Management Development Institute
MFI	Micro Finance Initiatives
MoLRG	Ministry of Land and Regional Government
MOECCNR	Ministry of Environment Climate Change and Natural Resources
MOF	Ministry of Finance
MOTIE	Ministry of Trade, Industry, Regional Integration and Employment
MPTS	Multiple Purpose Tree Species

NA	National Assembly
NAP	National Action Plan
NAPA	National Adaptation Programme of Action
NARI	National Agricultural Research Institute
NBSAP	National Biodiversity Strategies and Action Plans
NDP	National Development Plan
NEA	National Environment Agency
NEPAD	New Partnership for Africa's Development
NFA	National Forestry Assessment
NFAP	National Forest Action Plan
NFF	National Forestry Fund
NFS	National Forestry Strategy
NGO	Non-Governmental Organization
NSAs	Non-State Actors
NTFP	Non-Timber Forest Products
PAGE	Programme for Accelerated Growth and Employment
Pas	Protected Areas
PCFMAs	Participatory Community-based Forest Management Associations
PFM	Participatory Forest Management
PME	Performance Monitoring and Evaluation
REDD +	Reducing Emissions from Deforestation and Degradation
SDGs	Sustainable Development Goals
SER	State of the Environment Report
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
SMEs	Small and Medium Enterprises
TACs	Technical Advisory Committees
TANGO	The Association of Non-Governmental Organisations
TOC	Theory of Change
UN	United Nations
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Programme
URR	Upper River Region
UTG	University of The Gambia
VDC/P	Village Development Committee/Programme

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Chapter 1: Introduction

1.1 Background

Forests in The Gambia deliver multiple benefits, providing economic, social and environmental values. They offer habitats for wildlife and plants, mitigates climate change and provide other livelihood benefits. Also, our forests offer a wide-range societal benefits, including human health, recreation and tourism. The Department of Forestry (DoF) is the government institution under the purview of the Ministry of Environment, Climate Change and Natural Resources (MoECCNR) in charge of forest administration - ensuring sustainable management, utilizations and protection of all forest resources. The forestry legislative framework gives DoF the mandate to govern the affairs of forest resources in The Gambia, while soliciting active participation of the rural population and other stakeholders. In addition, it is responsible for co-operating and liaising with national and international organizations and bodies on forestry matters in The Gambia.

1.2 The Purpose and objectives of the National Forest Action Plan (NFAP)

The primary purpose of the plan is to provide practical guidance on the implementation of DoF strategy directions and programmes of sustainable dryland forest management and restoration during the next ten years. The **Action Plan** provides a framework for programming and learning; and further define our scope and institutional capacity to exercise our mandate to the fullest. It provides a programme direction in sustainable dryland forest management to make the forest sector more biodiversity-friendly, and socially beneficial. It addresses the linkages between forestry, biodiversity, and poverty reduction, showing their complementarities in sustainable economic development. The primary target audiences for the plan are The Government and line ministries, DoF staff, development practitioners and decision-makers in various government and NGO agencies related to forestry (at national, regional, and local levels).

The principal objectives of DoF are to restore the natural balance and sustain production and use of forest resources with the following specific intents that are inextricably linked in forestry:

- a) To substantially increase afforestation and reforestation nationally aiming at halt deforestation and restore degraded forests.
- b) To ensure continuous flow of desired forest goods and services without undue reduction of our forests inherent values and future productivity, and without undue undesirable impact on our dryland forests.
- c) To enhance and maintain the economic, social and environmental values of our forests for the benefit of present and future generations

1.3 Review and Planning process

This action plan is a revision and update of the 2001 – 2010 National Forestry Action Plan (NFAP). It is the culmination of a process of public consultation and focus group discussions carried out with key stakeholders at both national and regional levels. For four months, the national consultant and highly qualified resource persons – 3 experts in natural resource management and climate change economics worked in search of information on the current status and trends of Gambian forest reviewing most recent literature and referring to M&E work done in DoF. The preparation of this action plan was under the leadership of the Director of Forestry Department; and guidance of the Project Coordinator (FAO).

To a large extent, the action plan was informed by the contextual data gathered during key stakeholder consultations at national and regional levels, organizational assessment and focus group discussions. The process involved a cross-section of stakeholders including DoF staff, and other key stakeholders (ANR Working groups at regional levels, Regional Governors, CBOs, civil society organisations, timber merchants and NTFP traders at national and regional levels) that stimulated discussions on the action plan.

1.4 Review of NFAP I (2001 to 2010): Performance and Limitations

NFAP (2001 – 2010) is the first action plan of the Department of Forestry, all-encompassing and a systematic attempt to guide DoF in its programming. Written in 2000 (hence quite an obsolete literature), it presented a comprehensive contextual analysis showing status and trends of the forest degradation, poverty levels and some development challenges. NFAP I provided the base for programming to address the rapidly changing forest ecosystems which marked the last 18 years. However, the plan was too modest to halt the degrading ecosystems. Hence, DoF has to redirect major aspects of its programmes and become a more proactive player in the overall administration of forest affairs.

The National Forest Action Plan (2001 – 2010) has for the past eighteen years served as one of the programme instruments that guided DoF operations on sustainable forest resources management. During this period, several other programme guidelines, concepts and technical papers were developed to address the increasing challenges of deforestation and desertification in The Gambia. The interaction between Forestry Department and related sectors such as Agriculture, Livestock, department of Parks and Wildlife and Environment agency etc., are becoming increasingly important to ensure complementarities and synergy; as well as minimising overlapping mandates and conflicts of interests. Programmes related to forestry during the plan period were State Plantations, Joint Forest Park Management, Forest Management & Protection, and Community Forestry. Programming was guided by The Gambian Forest Management Concept (GFMC) of 2000, which was the blue print for Participatory Forest Management (PFM) in The Gambia, as well as information pack on Community Based Forest Enterprise Development using the Market Analysis and Development (MA&D) Approach. Other concepts also existed, such as the Joint Forest Park Management Concept (JFPM), Community Controlled State Forest (CCSF) Management and guidelines such as the Community Forestry Implementation Guidelines of 2002.

Programme achievements of planned activities were significant. The introduction of sustainable forest management concept provided greater opportunities in the protection of forest parks and expansion of community managed forests in the past eighteen years. NFAP I presented broad issues and strategic actions for implementation that improved coherence in the organization and maximised the impact of DoF programmes. A further review of NFAP I summarising DoF performance and levels of achievements is found in annex 1. Although there was considerable awareness of the importance of forests, there was scope to deepen the knowledge, including the need to create forest, in a drive to advance sustainable forest management. Given inadequate budgetary allocations and limited resource base of the communities, expected results were not accomplished.

During the planned period, community participation in the management of national forest parks enhanced their awareness and increased their involvement as co-managers in the implementation and sustainability of national forest parks.

This led to the introduction of **joint forest park management**, which provided adjacent local forest communities greater opportunities such as: (i) taking over more responsibilities (control

and patrolling, fire prevention and fighting, planting of trees) as more benefits and rights are transferred to them, (ii) securing permanent forest cover and increasing local incomes derived from forest resources, (iii) increased cost efficiency and effectiveness of park management and (iv) assurance of people's access to forest products in their customary forests. Thus, Joint forest park management has created space for DoF to develop its own agenda. However, The Joint Forest Park Management could not advance with the anticipated pace due to shortage of funds and trained local staff. There were 24 of such projects covering 17,550 ha implemented. This achievement is attributed primarily to the technical and financial support provided by two separate, but complimentary German funded projects, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) and (KfW).

DoF has had resource-constraint, hence it was slow in providing more radical innovations. The challenge was inadequate sector resourcing (fiscal and human) for the department to introduce new and sustainable programme initiatives including research and development.

The two succeeding forest policies (since 1995), and the supportive legislations (Act and Regulations, 1998 and 2018) provided a significant opportunity for DoF to promote private forestry and establishment of plantations on barren or infertile lands during the planned period. Private forestry was picking up very slowly and there are only a few such natural forests and plantations in the Gambia. Government demonstrated its commitment to support private foresters by providing them adequate privileges and incentives, e.g. exemption of regular forestry tariffs /levies such as licences and duties for exploitation and transportation of products based on approved forest management plans.

The Gambian Forest Management Concept was found appropriate and relevant. The Department of Forestry registered the following achievements in its implementation during the plan period:

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> a) Identification and adoption of low cost technologies and techniques both for forest protection and development b) The establishment and legal recognition of main categories of forest parks with the following estimated coverage: CF of 200,000 ha, private forest of 10, 000 ha, and state forest of 105,000 ha; c) Providing a better framework for forest management in the Gambia by recognising forest parks as the nuclei for the introduction of Community Forests; d) Secured some political will, and meagre government support on forest administration. e) Active participation of local communities in forest management (e.g. community forestry); f) Sharing of benefits (with the initiation of the National Forestry Fund – NFF and Local Forestry Fund - LFF) from forest utilization that contributes to rural economies; g) It has also broadened the scope of forest management taking into consideration the needs of the local communities; h) Positive attitudinal change by focusing less on policing the forest and putting people before trees; i) Reduction of dependency on foreign and external assistance (initiatives and subsidies); |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

During the planned period, the department of forestry embraced an integrated approach to forestry with a focus on dryland forest restoration; providing technical support to promote appropriate forestry technologies, catalyze change and build effective and strong institutional capacity for sustainable forest management. There were several major changes in the strategy towards integrated interdisciplinary and innovative approaches to bear on our work in the forest sector, and engaging other key sectors that have an impact on forests. Our profile is increasing, and this have open new doors for strategic partnerships with private sector and civil society organizations in order to underpin our work at local level.

Community forestry has been the hallmark of our programming, seeking to facilitate and catalyze forest restoration processes at local level. DoF staff were supporting communities and other CSO partners to strengthen the systems and processes required in actualizing their goals in community forestry.

Overall, DoF's past performance reflects clear strengths in supporting and working with rural communities – particularly in Participatory Forest Management (PFM), and Community Based Forest Enterprise Development using the Market Analysis and Development (MA&D) Approach.

Programme diversity will remain the feature of our operations in the country. Our practical demonstration of blending forestry and participatory programming and other such methods in programme design is now widely recognised. Planning, monitoring and reporting systems are developing, and core accountability systems are being established. The quality of staff supervision and staff commitment to their work is high. However, the recruitment and retention of senior staff, low academic qualifications; and over-ambitious planning were posing some organizational challenges.

1.5 NFAP (2019 to 2028) Perspectives

A comprehensive National Forestry Strategy (2019 – 2028) and its long-term core programmes has been prepared to promote Gambia's sustainable forest management and development. This Action Plan is consistent with that strategy, with emphasis on measures that will ensure that DoF is able to confront our growing challenges without losing sight of the long-term environmental, poverty eradication and social development imperatives. Sustainable forest management and development is about the long term and can only be achieved through investments in the forest. Thus, this action plan proposes a process-oriented approach, projects and related activities that are aimed at restoring and sustaining forest biodiversity while promoting our economic growth prospects through sustainable forest management.

The National Forestry Strategy and this Action Plan are integrated in the sense that they take full consideration of environmental values, economic growth, income distribution, poverty eradication, social equity and better governance as an integral part of Gambia's development agenda. These forestry plans cannot be implemented in isolation from the overall objectives of our National Development Objectives and will therefore be implemented in harmony with the other components of the National Development Plan.

This Action Plan is organized around our strategic pillars, core programmes and project activities to be implemented over a period of ten years. The interventions cover the following strategic priority areas and cross-cutting issues as identified in the strategy of Ministry of Environment:

- combating land degradation, drought and desertification;
- dryland and wetland conservation;
- cross-border conservation of forest resources;
- climate change;
- and crosscutting issues.

The Action Plan addresses related problems of forest governance and capacity-building; population pressure; and research, development and technology transfer.

The implementation of the National Forestry Strategy and this Action Plan will be a challenge requiring the support of Government of The Gambia (GoTG) and active participation by all related sectors and their development partners. An intermediate step for the implementation of

this Action Plan has been the active participation of key stakeholders in the development of the National Forestry Strategy.

Chapter 2: The Gambian forestry sector

2.1 Introduction:

The analysis presented in this section heavily rely on literature provided by NFAP (2001 – 2010) under review, and NFA (2008 – 2010) as these are the most recent assessments conducted by the department of forestry. In the past, two national forest inventories were carried out in 1981/82 and 1997/98 and one national forest assessment in 2009/2010), which provided us valuable data-base for planning and decision-making. Another cycle of assessment is due to obtain accurate and quantitative estimates of changes in the vegetative cover over the last ten years. That will be helpful to DoF and partners to gain a better understanding of forest resource management. Forest surveys should be the main ground for forest policy development and planning.

The Gambia is of Sudano-Sahelian agro-ecological zone with a long dry season from October to May (Yaffa, 2013); and the natural vegetation zone is woodland savannah. The country consists of two narrow strips of land – ranging in width from 24–48 km on either side of the Gambia River. Predominantly a low Plateau, only 30% of the land is 10 m above sea level. The country has a coastline of 80 km to the West and shares its northern, southern and eastern borders with Senegal. Nearly 70% of the forests are degraded and desertification is a major environmental issue particularly in the northern regions of The Gambia River. Over the years, The Gambian forests have since 1946, undergone significant changes resulting to severe degradation trend.

2.2 Gambia Forest Trend Analysis

The Gambia has had a wealth of natural resources, including productive natural vegetation cover, watersheds, biological diversity, wildlife, forests, fisheries and water. The vegetation was once described as forest savannah. In 1946, its total forest cover was 81.2% of the total land area, of which 60.1% was closed forest. However, by 1968 this (closed forest) was depleted by 8%; and by 1998 the forest cover reduced to 302,000 hectares (28% of total Gambian land cover) of which only 1% is evergreen forest (NFA, 1998). This means, The Gambia lost more than 53% of its forest cover since 1946. These statistics show the extent of damage The Gambian forest cover had under gone.

The land-use patterns over the years caused significant changes in the vegetation cover. The expanding crop agriculture and overstocking in the eighties and early nineties significantly disturbed the flourishing vegetation and the rangelands. "Savannah Woodlands" and "Agricultural Lands with Trees" have increased, while "Tree and Shrub Savannah" have decreased. Natural succession and recovery of forests could not match the accelerating land-use changes. However, the groundnut industry resulted in a decrease of upland farming activities in the recent past, leaving farmlands unattended. The decrease in farmland area led to an increase in both fallow land and savannah areas. Regeneration of trees has increased substantially, especially certain fire wood species. This development is probably due to decline in agricultural activities. It may also be a sign of less intensive burning during the dry season, leaving more regeneration to survive. A substantial increase in natural regeneration of tree species can be observed on some abandoned groundnut farms in LRR and URR (North).

The groundnut land-use pattern has been replaced by opening virgin lands in riverine areas for rice irrigation (in CRR – South); orchard development/banana plantations (WCR); and widespread deforestation with illegal logging (promoting the recent Chinese timber trade),

indiscriminate tree-felling for charcoal production, and over exploitation non-timber forest products throughout the country.

As a result of the reliance of Gambia's rural communities on natural resources and agriculture, the livelihoods and food security of rural households is threatened by these activities which are degrading the country's ecosystems and forest resource base.

At present, widespread forest degradation and unsustainable land-use practices are reducing the generation of ecosystem goods and services that support both agricultural productivity and rural livelihoods in The Gambia. For example, unsustainable land-use practices such as overstocking of livestock and reliance on slash-and-burn agricultural techniques has resulted in a widespread depletion of soil fertility, thereby reducing agricultural productivity. Other sources of degradation, such as over-extraction of woodland trees, uncontrolled bushfires, illegal logging and production of charcoal results in a considerable loss of vegetation cover which leads to widespread soil erosion and sediment transfer into the Gambia River. Overall, the reduction in ecosystem goods and services is leading to negative effects on rural Gambian's biodiversity, food supply, health, nutritional status, income streams and socioeconomic well-being.

2.2.1 Some current trends: Forest biodiversity

i) Forest biodiversity is being lost at an alarming rate. Recent studies (and other documentations) such as the National Forest Assessment (2008-2010), The Gambia's Exports of Rosewood (Forest Trends - March, 2004) and The National Biodiversity Strategy and Action Plan (2015 – 2020) indicate that a large part of Gambia's forest ecosystems is threatened or being lost due to the loss and degradation of forest habitats, and that this reduction of forest biodiversity will be aggravated by the effects of climate change.

ii) With the efforts of DoF, the forest area designated for the conservation of biological diversity (especially, Community Forestry) has increased significantly in the recent past, but it is unclear how effective the protection of these areas is, and different forest types are represented very unequally in the total area of protected forests.

iii) Forested wetlands represent a habitat particularly vulnerable to excessive direct use in The Gambia. Forested wetlands are highly biodiversity-rich and provide significant ecosystem services, such as carbon sequestration, and they underpin productive fisheries (MEA 2005). A significant proportion of Ramsar Sites in The Gambia include forested areas, although a lack of data estimates of the extent of coverage of this forest type under existing protected area systems.

iv) Areas under agriculture and pasture is still expanding at the expense of the dryland forest. Although, the decline in cash crop (groundnut) production left some unattended farmlands, the increasing livestock rearing is disturbing the ecosystem due overgrazing. Expansion in horticulture and food crop production (including rice irrigation) have had some impact on the dryland forestlands, but this is not as severe as the deforestation with cash crop groundnut production. Also, current deforestation by estate housing agencies for new settlements, particularly in WC Region is a devastating concern, and this is expected to continue in the next 30 years.

2.2.2 Some current trends: Sustainable use and Consumption of Forest Resources

i) Illegal and /or unsustainable logging in Gambia and Southern Senegal is on the increase. Both Governments lose significant amounts of revenue every year as a result of uncollected taxes and royalties. Recent estimates suggest that up to 99% of traded rosewood from Gambia might

originate from illegal sources. DoF fears that rare tree species and those with high value for timber are now in danger of becoming locally extinct.

ii) Significant growth in some non-timber forest products (NTFP) markets has been observed, and there has been an extension of marketing systems to more remote areas; a growing interest in products such as wild foods, herbal medicines, and handcrafted utensils. Consumption of forest beverages and some wild food (e.g. locust beans and baobab) are on the increase with large and reliable markets, and the products tend to be supplied by specialized producers using more intensive production systems.

iii) DoF recognise an increasingly important role of civil society and private sector players in the management of forest products, reflecting the public's desire to secure a range of ecosystem services from forests. Consequently, multi-stakeholder processes, from a local to an international level, are becoming significant.

2.3 Gambia Forest Status

The Gambia's "Forest resources" – consisting of evergreen, deciduous, semi-deciduous, mangrove and palm forests, as well as exotic and indigenous plantations offers significant potential for human, social and economic development. It is, however, facing enormous challenges. Over the last 50 years, anthropogenic activities – particularly the expansion of agricultural land¹ – has resulted in the transformation of natural vegetation (e.g. forest or woodland) to a mix of agricultural land uses and degraded/transformed ecosystems². This is exacerbated by rapid population growth, rising levels of poverty and inappropriate development practices. Other factors that have led to continued forest degradation include the impact of climate change - drought, frequent annual forest fires, and other natural disasters; poor forest governance and ineffective enforcement of the Forestry Act and related policies.

Eight years ago, The Gambia's forest cover was about 425,000 hectares including other wooded land (44% of the total land area), which comprises 15,000 hectares of forest evergreen, 160,000 hectares of forest deciduous (naturally regenerated forests³), forest semi-deciduous of 88,000 hectares, mangrove and palm of 39,000, and other wooded land of 123,000 hectares (NFA, 2010). This presented a forest cover of only 28% of the country's land cover⁴ in the following table:

Land Cover Category	Area ('000 ha)	% of total land cover
Forest evergreen	15	1
Forest deciduous	160	15
Forest semi-deciduous	88	8
Mangrove	36	3
Palm	3	0
Forest	302	28
Shrubs	56	5
Wooded grassland	53	5
Wooded wetland	14	1
Other Wooded Land	123	11

The remaining areas of natural forest in The Gambia are restricted to: i) state-protected areas such as National Parks, National Forest Parks and National Forest Reserves; and ii) community-managed areas such as Community Forestry areas and Joint Forest Park Management areas.

Other land covers/land utilisation types covering 588,000 hectares (54% of total land area) are of bare land (31,000 ha), natural grassland (21,000 ha), marsh land (30,000 ha), barren flat (17,000

¹ Available at: http://www.columbia.edu/~msj42/pdfs/ClimateChangeDevelopmentGambia_small.pdf. Accessed on 18 September 2015.

² Ibid

³ Naturally regenerated forest where there are clearly visible indications of human activities.

⁴ Technical Feasibility Study, November 2015 (for GCF Proposal)

ha), improved pastures (5,000 ha), annual crops (375, 000 ha), perennial crops (8,000 ha) mixed annual and perennial crops (16, 000 ha), fallow (42,000 ha), infrastructure (41,000 ha) and mining sites of 2,000 ha (NFA, 2010).

However, in the absence of detailed modern forest inventories and classification of land use classes, the current spatial extent and density of vegetation within the natural ecosystems (such as forest and woodland) in The Gambia is largely unknown. The composition of land cover is variable with extended drylands, particularly the northern bank of River Gambia, of which approximately one third is becoming a hyper-arid desert, while the remaining two thirds our land consists of arid, semiarid and dry sub-humid areas.

The composition of land cover is also, variable within and between each of the five administrative regions, as described below⁵.

- Western Region: comprises assortmentsavannah woodland, shrubs, fallow areas and mangroves.
- Lower River Region: comprises degraded savannah woodland and mixed agriculture, with dense mangrove belts along the Gambia River.
- North Bank Region: is dominated by agricultural land with woodlands occurring inland from the river, behind an extensive network of mangrove forests. Barren flatlands occupying the lower reaches of major freshwater tributaries of the River Gambia.
- Central River Region: is dominated by mangroves, freshwater riverine forests and thickets. Barren flats occur in the lower reaches of the Gambia River. In addition, shrub savannah is located in Niani and Sami districts, as well as upstream of Bansang.
- Upper River Region: consists of three classes of vegetation cover: i) floodplain shrub savannah, which occurs in depressions along Gambia River; ii) shrub savannahoccupying near the floodplain; and iii) large tracts of savannah woodland, which are located in Fulladou East and Sandu districts where elevation is between 20–30 meters above sea level.

The issues of concern in these landforms include, but are not limited to, widespread land degradation: deforestation, desertification and loss of biodiversity. The analysis showed that, approximately 50 per cent of land degradation in The Gambia is caused by activities related to crop production;24 per cent caused by overgrazing; and 14 per cent by vegetation removal for expanding settlements and saw timber,and another 13 per cent by overexploitation of the land (for fuelwood and NTFP collection)⁶.Wind and water erosion is extensive in many parts of the country, with large areas of the land prone to water and wind erosion.This have wider implications on food security, sustainable forest management, human health and poverty eradication efforts.Land is an important resource on which Gambia’s economyis based. Agriculture and natural resources sector is the mainstay of the rural economy. The sector contributed about 30 per cent of Gambia’s GDP in 2010, employs over 70 percent of the active labour force, generates foreign exchange earnings and provides two-thirds of total household income (PAGE 2012 – 2015). In addition to providing subsistence crops for a large proportion of our population, there are increasing demands on land to produce domestic food and cash crops for export, thereby facilitating economic growth.

Literature reviews and in-country consultations clearly demonstrated the importance of forest resource-based products to the livelihoods of rural households, both for home consumption as

⁵ NFA, 2008 - 2010

⁶ Estimates from trend analysis

well as for sale. Natural products for which there is a well-established local demand and familiarity include products such as foods (*Baobab, Kabba, Netto, Ziziphus* as well as products such as honey), medicines (numerous species), building materials (Rhun palm as well as semi-valuable and valuable timbers) and handicrafts (particularly furniture constructed from Rhun palm).

All of the above-mentioned products are widely available and are traded within complex informal national and regional value chains. Although there are existing markets for the above mentioned products, these markets and supporting value chains are currently under-developed and do not make a significant contribution to the formal economy. The limited development of these value chains is not related to supply and demand, but rather is related to the minimal value and returns paid to rural households on the ‘supply side’.

2.4 Challenges and responses

2.4.1 Challenges

The Gambia is experiencing an array of serious challenges in managing its forest resources. Unsustainable exploitation and degradation of forests, and other natural resources threaten to undermine the country’s economic development prospects. For example, the country is most severely affected by desertification, which threatens a large portion of Gambia’s land area, particularly in the northern region of River Gambia. Recurrent droughts are largely a manifestation of land degradation in the country. The Gambia is faced with four major challenges with regard to its forest resources, namely:

a) **increasing population pressure on forest resources** through i) slash and burn agriculture, and rapid expansion of pump rice irrigation and introduction of animal traction/semi-mechanization in rain-fed crop agriculture; and ii) proliferation of estate development especially in the West Coast Region– has caused significant damage to the natural vegetation. The primary cause of forest land degradation has correlated to an increase in arable lands. Land that was put under cultivation in 1997 was 200,000 ha, but this area increased to 440,000 ha in 2012, representing an annual rate of 7.96% loss of forest land areas. This is attributed to high immigration from neighbouring countries in the sub-region settling among the farming communities of rural Gambia; giving rise to emerging new settlements in the countryside.

There is rapid urbanization in The Gambia, with emerging Powerful Housing Agencies engaged in “Land Banking”, leasing huge areas of forest lands for estate development. Our growth centres and cities are experiencing rapid population growth accompanied by rapid development pressures with high demands for housing and infrastructures. The population of some of these cities is doubling and the concentration in the urban areas has led to the deterioration of the human environment, caused by the increasing gap between economic growth on the one hand, and population growth and concentration on the other. This urbanization has led to deteriorating human settlements, and depletion of natural resources.

b) **The recent Illegal and /or unsustainable logging and harvesting of forest products** seriously undermine national efforts to improve sustainable forest management in the country. DoF lose significant amount of revenue a year as a result of uncollected taxes and royalties. From 2010 to 2013 The Gambia exports of Rosewood increased from 0 m³ to 317,466 m³ valued at



US\$165,598,644⁷. (Photograph: *Badumehkuta, Jarra West landing site*). Records estimates suggest that up to 99⁸% of the traded *Pterocarpus erinaceus* (“KENO”) might originate from illegal sources, blaming the weak forest governance. Rare tree species and those with high value for timber or non-timber forest products are often in danger of becoming locally extinct.

c) Forest fires:The NFA report, Department of Forestry 2010, showed that 151,000 ha (i.e. nearly, 50% of total forest cover) had been burnt during the 2010 fire season. Also, bush fires claimed 55,000ha out of a total of 123,000ha of Other Wooded Land, and 105,000ha out of 589,000ha of Other land. There were many bush fire incidents around the country-side; but the provincial regions (URR, CRR and LRR) were appearing most problematic, damaging nearly 60% of the forest cover in 2010.

d) Climate change:In recent years, climate variability in the Gambia has resulted in an increase in the frequency and severity of extreme weather-related events: droughts, floods, windstorm, rising temperatures, etc. These extreme events are expected to become exacerbated under conditions of climate change as a result of woodland degradation and land-use change. Gambia’s contribution to the global pool of greenhouse gas emissions is relatively low and negligible.

Despite this, the Gambia is considered to be more vulnerable to the impacts of climate change because of factors such as recurrent droughts, floods, inequitable land distribution, overdependence on rain-fed agriculture, decreased ecosystem goods and services from natural vegetation, and widespread poverty. Although there is much experience to date of coping with climate variability and disasters from which useful lessons for adaptation can be drawn, the projected pace of climate change could shorten the time frame available for adaptation to less than what the existing social and economic systems can cope with.

The Gambia is characterized by various plant species that are at high risk of extinction and require protection measures. Valuable species like *Pterocarpus*, *Borassus* and *Parkia* that were more exposed to utilisation for timber and fire wood are threatened by the large-scale exploitation. Some minor, but still important components of the woodland population, like *Khaya*, *Borassus* and *Mitragyna*, are now reduced to low frequent species and are probably soon marginalized, as it can be observed already in the savannah population. Due to the small size and fragility of Gambia’s ecosystems, our biological diversity is among the most threatened in the world. This requires that in the pursuit of development, special attention must be paid to protection of forest resources and people’s livelihoods. Climate change, climate variability and sea-level rise are issues of great concern for us and will be addressed in this Action Plan.

One of the biggest challenges facing The Gambia is the reconciliation of our development needs with the sustainable management of our forest resources. There is an urgent need to break the so-called cyclical and downward spiral of the poverty-environment nexus. Over the years, poverty remains the main cause and consequence of environmental degradation and forest resource depletion without significant improvement in the living conditions and livelihoods of the poor. Deforestation and desertification must be addressed within a broader perspective that addresses the root causes of forest degradation. For us, poverty alleviation is the overriding goal and priority of our development policies. The main objective of this Action Plan and our

⁷By Salifbabacar Gueye (March 2014). The Gambia’s Exports of Rosewood, Forest Trends, Ministry of Environment and sustainable development.

⁸However it estimated that 99% of these logs exported to China do not originate in The Gambia

National Forestry Strategy is, therefore, to assist us to integrate forestry considerations into poverty reduction policies and strategies. An enabling environment and sound guidelines have been incorporated in our forestry strategy in order to ensure the smooth implementation of this Action Plan and to achieve our ultimate goals of reducing poverty and environmental degradation.

However, because of inadequate financial resources, particularly with low government budgetary allocation and uncertainties regarding donor funding, and limited technical capacity, our forestry regulations, policies and plans are not fully enforced, nor implemented. For instance, within the DoF there are 231 staff members distributed across five regional and Banjul office which is modest to support all forest related activities. Human capacity are also, limited in related sectors to support in the management of forest resources.

Consequently, there is an inadequate availability of staff, infrastructure and equipment to implement and enforce forestry regulations, provide extension services or undertake systematic monitoring and evaluation of our programmes. An additional consequence of the limited availability of resources and technical staff within DoFs that rural communities do not receive adequate support and training to effectively and sustainably manage their forest resources.

In summary: there exist forestry policies and strategies promoting sustainable forest management, however, at present the capacity of DoF to implement them requires further strengthening.

2.4.2 Responses to the Challenges

The Government of Gambia has responded to global and regional commitments by ratifying several International Conventions which are related to sustainable management and utilization of Forest resources. These are a) the Convention on Biological Diversity; b) the United Nations Convention to Combat Desertification; c) the Convention on International Trade in Endangered Species of wild Fauna and Flora; d) the Convention on Wetlands of International Importance (Ramsar); and the United Nations Framework Convention on Climate Change. The Gambia is now participating in international efforts to implement these conventions. However, the implementation of these Conventions have been limited because of, inter alia, lack of appropriate financial resources.

To address some of these challenges, The Gambia Government developed policies and established projects to protect the country's forest resources and increase the effectiveness of natural resource management. The draft Agriculture and Natural Resources (ANR) policy (2017-2026) and the National Forestry Strategy (2019 – 2028) identifies several priorities related to management of forest resources, as well as the development of: i) value chains for forest products; ii) opportunities for private sector and CSO partnership; and iii) REDD+ projects. Similarly, the Forest Policy (2010–2019) was formulated with the objective of establishing an institutional framework for the Department of Forestry (DoF) and non-governmental stakeholders to manage and implement natural resources programmes within the country's forests, woodlands and savannahs. An important component of The Gambia's existing ANR and Forest policies is the promotion of decentralized forest resource management (including inter alia community forests, forest reserves and conservation areas) to community-based committees.

The Government has recognized the importance of the potential contributions of community forestry towards the country's objectives of sustainable forest management. The principle of community-based management as a cost-effective approach to support sustainable forest resources management is widely recognized in The Gambia. The government's decentralization

programme in forestry is based on the observation that community-managed Forest Reserves have a greater forest canopy cover, biomass content and biodiversity than other land use categories in the country. Community co-managed areas have a lower incidence rate and severity of forest fires, and a lower rate of encroachment, compared to State Forest Parks.

FAO case study report on 'Community Forestry Enterprises in The Gambia' shows some of the benefits citing the relatively good condition of community co-managed areas; and potential contributions of community forestry towards securing long-term access to land tenure, which is believed to be the strongest incentive for communities to manage forest resources sustainably. For example, communities are more likely to respond to a forest fire in a co-managed area as there are clear incentives to protect the remaining forest resources (such as firewood and grazing land).

At present, Government awarded forest management rights to a total of 458 communities across the country, the majority of which are located in Community Forest reserves. The process of transferring management rights to communities and establishing Community Forest reserves (currently governed by the Forest Act, 1998) has been very significant. Through the establishment of a mechanism for collection of fees from forest user groups, the decentralized forest management programme generates revenue for the National Forest Fund (NFF). This fund contributes 55% to the operating budget of the DoF, and in particular is used to fund the ongoing activities of DoF related to forest protection, development and sustainable use of forest resources, promotion of community forestry (community forest management and joint forest park management), training of forestry staff, reforestation, and infrastructural development.

2.5 The Forestry Department

The Department of Forestry is mandated to preserve 30% of the total land area under forest and take charge of forestry administration - ensuring sustainable management, utilizations and protection of all forest resources in The Gambia. The forestry legislative frameworks gave DoF the mandate to govern the affairs of forest resources in The Gambia, while soliciting active participation of the rural population and other stakeholders. The interventions include maintaining, developing and managing the forest ecosystem with a view to enhance environmental protection through minimizing land resource degradation while maintaining river bank stability, protecting wetlands, and improving and preserving biodiversity. The key functions are to:

- administer and protect all State forests and regulate the management of private forests in accordance with the Forest legislation;
- promote the establishment of forest plantations and appropriate agroforestry practices;
- ensure sustainable management of ecosystems and biological diversity in all forests & open areas;
- collect, analyse and disseminate information on status and trends of forest resources to advise on areas requiring afforestation and protection of flora threatened of extinction;
- develop and implement participatory forest management approaches, for both indigenous forest and forest plantations/agroforestry, involving local communities, NGOs and other stakeholders based on equitable gender participation.

2.5.1 Vision

Consistent with our National Development Plan (2018 to 2021), and National Forestry Strategy (2019 to 2028), the overall vision of this action plan is a secured country that upholds a

stable **Green Economy**: ‘An existence of thriving forest ecosystem goods and services that fulfil ecological values, and provides economic and social benefits for society’.

2.5.2 Mission

To conserve Gambia’s forest resources from degradation and take urgent action on climate change; while promoting methods of utilising forest resources at a rate that maintains their biodiversity, improve productivity, regeneration capacity, vitality and their potential for providing environmental values, social and economic benefits for present and future generations at local, national and global levels, without causing damage to other ecosystems.

2.5.3 Our Goals

Our Mission statement presented three main goals:

1. the conservation of forest biodiversity;
2. the sustainable use of forest resources; and
3. maintaining the environmental values, social and economic benefits.

This strategy presents a core intent that articulates three goals that are believed to be inextricably linked. The first focuses on resource-users and their livelihoods, and the second is the sustainable management of forest resources. Given the mission statement, results are identified that DoF must drive towards in order to achieve its vision. These are called objectives/core outcomes, and they clarify DoF’s understanding of what needs to be in place and enable secure the vision: *a) Empowered and engaged forest community; b) Strong and dynamic forest sector; and c) Healthy forest ecosystem.* These core outcomes are inter-linked; they are all essential parts of the impact in forestry programming.

2.5.4 Some Programme Reflections

DoF has long-term commitment to the protection and development of our forest resources, and this allowed the department to gain an in-depth understanding about the forest communities and their demands on ecosystems goods and services. DoF were also able to build up a cadre of staff that are committed to reversing the trends of forest degradation and desertification, as well as use of participatory methodologies. DoF strong focus on community forestry has gained the credibility and reputation; and this increased its profile and scope as the government institution responsible for forest administration in the country. It has opened new doors for strategic partnerships with international organizations and CSOs in sustainable forest management.

DoF has built extensive community networks for sustainable forest management in the countryside; and we have ongoing relationships with related government sectors, especially Parks and Wildlife, Agriculture and Livestock. DoF is well connected and grounded, and have gained both local and international confidence. With creativity and innovative interventions, the department is steadily increasing its gains in community forestry. The initiatives are evidence-based, and these have been increasingly mirrored in forest development practice and policy. The major forest development programmes include nursery and plantations, state forest reserves, community forestry, community protected areas and joint forest – park management. However, M&E system at programme level is weak, and the overall programme planning, monitoring and reporting of annual (and multi-year) objectives and budgets are inadequate.

2.5.5 The Forestry Department Resources

The Department of Forestry has four functional units: Participatory Forest Management, Communication & Extension, Monitoring & Evaluation, and Technical Services; and in addition, Regional Forestry Offices in the six administrative areas of the country to execute technical and administrative functions of the directorate. The decentralization of the

department's administrative structure brought us closer to forest communities to implement community forestry and process the transfer of forest ownership to the local communities.

The Department has a staff strength of about 231, distributed across the country as follows: However, there is need to improve our HR management system in order to over-come the challenges of talent retention. Generally, staff capacities are low, and staff training opportunities are limited in DoF. Lack of an organizational data base, inadequate IT system and insufficient vehicle fleet for programming are matters of concern. DoF financial base is weak, particularly with low government budgetary allocation and uncertainties regarding the shifting state priorities. Poor grant acquisition level and the weak vibrant programme pipeline linked to low budgetary allocation is a barrier to programme growth.

S/N	Location/Regions	No. of Staff
1	Banjul	27
2	West Coast Region	98
3	North Bank Region	19
4	Lower River Region	17
5	Central River Region	48
6	Upper River Region	22
Total		231

A related weakness is the limited ability to identify and reach out potential donors for funding. Although, DoF profile has been raised by its leading role in community forestry, we are truly struggling in the highly competitive funding environment.

Government's budgetary allocation to DoF has reduced over the years, and greater portion of the recurrent budget has been provided from the National Forest Fund (NFF) and multi-lateral sources to boost its financial and human resource capacity. Available financial and human resources for the Department are still regarded insufficient for its expanded functions proposed in the Forest Policy (2010 – 2019). Government expenditure in Forestry (2017 Estimates) is D3,614, 260 which is far less than funds provided by bi/multi-lateral sources. Revenue collected in 2017 by Department of Forestry for the NFF is D27,861,000. Department of Forestry, through the programme co-operation with FAO in partnership with donors (e.g. GEF) is prioritising programming on dryland forest management and action against desertification, as well as in the form of Protection, improvement of silvicultural practices, testing of models and concepts. The aim is to increase and improve the total land area of managed forests.

2.5.6 Opportunities and Challenges of DoF

i) Opportunities

The 2010 – 2019 Forest Policy, and Forestry Act 2018 provided significant opportunity in promoting forestry development; prioritising effective governance of forest resources, community forestry, plantation establishment and management, private forest development and joint forest park management with the participation of local communities. These programmes are supported by the National Forestry Strategy 2019 – 2028. The new strategic direction provides long-term perspectives and leadership in the administration of forest affairs, while working in partnership with the private sector, civil society organisations and communities, and alliances with related sectors and agencies where joint actions are needed.

The strategy emphasised policy advocacy and influencing functions to mobilize the political will for sector financing, promote evidence-based best practices in sustainable forest management, while facilitating linkages with related sectors and supporting projects that impact on the forest. It underpins research and development for forest technology generation; disseminate and apply information and knowledge in forest conservation and development. In order to achieve this, DoF will focus on strengthening local structures in CF, and engage in research and development

for new technology generation and transfer. DoF recognises the pivotal role of local communities to ensure attainment of its strategic objectives. The introduction of sustainable forestry management concept has in the last ten years provided greater opportunities in the protection of forest parks, expansion of community managed forests, introduction of joint forest park management, addressing deforestation and rolling back desertification. There is increasing importance of community participation in forest management; and private forestry is picking up, but very slowly while Joint Forest park management is equally building the momentum especially in Central Region.

In respect of programme impact, communities involved in CF have indicated many benefits realised from the forest. Among these are protected grazing areas for their livestock especially during dry season, source of fuel-wood, reduced illegal exploitation, source of income from sales of wood and non-wood products, source of funding for village development activities, protection of biodiversity, etc. Other small, but nonetheless important benefits include roofing material, timber for housing, fruits and nuts for consumption, etc.

DoF employed FAO's Market Analysis and Development (MA&D) approach to assist communities in the creation of income generation activities from the Community Forests, in line with the Gambian Forest Management Concept (GFMC). The MA&D methodology was piloted in Western Region in 2001. The list of products selected in the pilot sites included honey, timber/logs, handicraft and splits from rhun palm, *Borassus aethiopum*, firewood, ecotourism, tree nursery, kembo, *Prosopis Africana*, poles. After encouraging results from the pilot implementation of MA&D, the Department decided to extend the approach to two more regions through FAO/DoF Technical Cooperation Programme signed in 2003. The project included extensive capacity building MA&D initiatives involving DOF staff to provide extension services on the methodology to facilitate the development of community-based enterprises utilizing products, resources and services from community forests. In order to institutionalise the approach, MA&D module was included in the National Forestry School curriculum to develop capacities of new Forestry and wildlife staff. Demand for MA&D approach in participatory forest management is now high as local communities recognized that community forest can be permanent sources of income and/or livelihoods. Thus, community forestry is more broadly adopted, leading to reductions in deforestation and forest degradation and increased contributions of forests and trees to improve livelihoods and to contribute to climate change mitigation and adaptation.

The greatest achievement is the implementation of Gambia Forest Management Concept (GFMC) & community forestry guidelines and Joint Forest Park Management Guidelines as a strategy for sustainable forest management. The strategy recognises cross-cutting issues of concern; such as population and social concerns, youth and gender dimensions while emphasising cross-sectoral coordination. However, there exists multi-sectoral coordination mechanism for natural resource management, the ANR platform, and a working group consisting of representatives of government entities and NGOs having mandates or working on issues related to natural resource management that can provide coordination roles at national level if effectively engaged.

The new strategy provides an enabling environment for private sector investment and civil society participation in sustainable forest management and development. There is growing markets for non-timber forest products (NTFP) such as herbal medicines, handcrafted and Eco-tourism. Government is encouraging increasing private sector involvement in forest development and has provided investment incentives including no importation and export taxes on certain NTFP. Small scale forest enterprises do offer opportunities, and are of great value to local economies providing alternative livelihoods. In the existing CFs, there are a number of

functioning small scale forest enterprises products: timber, firewood, honey, fruits and nuts, handicrafts, etc. that are useful to local economies.

ii) Challenges:

The current forest policy highlighted the following challenges, which are our major concerns in forest management: (a) population pressure and the inability of the natural resource sector to meet the increasing resource demand; (b) the inability of various users to take full responsibility of balancing supply and demand for forest resources; (c) inaccessibility to land and difficulties in securing extended tenure (to match the long-term benefits of investment in forest resource development) for private foresters; and (d) uncoordinated/poor marketing system for forest products. Progress towards sustainable forest management remains uneven and cross-sectoral, and integrated management and landscape approaches are often underutilized.

Government efforts in financing forest management have been low, on average less than one percent of the total government recurrent budget. With the institutional capacity gaps at the local level, technical assistance provided to CFs and local communities is still inadequate.

Other relevant government institutions in the country have limited understanding of the CF concept and tenure transfer principles, and dryland management issues in the context of their sectoral mandates. This is a significant barrier for adopting an integrated and inter-sectoral approach. At CF level, the capacity barriers are related to the knowledge/skills of the Community Forest Committees (CFCs) on the steps of CF tenure transfer, monitoring mechanisms and record keeping of monitoring activities. Also, partner CBOs at regional levels have significant capacity gaps in silvicultural practices and techniques, agroforestry principles and practices, bushfire management, water conservation techniques, and forestry-based enterprise and value chain development.

DoF is still unable to stimulate adequate private sector response to invest in forestry. Private sector participation in harvesting and marketing of forest products is currently limited, and the most lucrative investment is in processing and selling of wood for construction and furniture production. Despite the incentives (mentioned above), many private sector actors do not have sufficient start-up capital to meaningfully invest in forest enterprises. They are also wary towards forestry business as it is considered a risky and unsustainable venture due to the long gestation period for meaningful economic returns. Commercial banks are reluctant to provide loans for these types of businesses. This is evidenced by the few private entrepreneurs operating in forestry.

There are limited value-additions and poor market linkages with small scale forest enterprises. Some of these products are of poor quality with limited technical skills in extraction, post-harvest handling and value addition, and in management and administrative skills. The enterprises are poorly connected to support services (e.g. access and effective linkages to microfinance institutions, access to markets, etc.) and are poorly organized within and among other businesses.

2.5.7 Policy and strategy alignment

The Government of Gambia responded to global and regional commitments by ratifying several International Conventions which are related to sustainable management and utilization of Forest resources. To fulfil commitment, there are established necessary legal, institutional and policy frameworks for the management and conservation of forest resources. This action plan is aligned to these conventions; and is rooted in the National Forestry Strategy anchoring on the umbrella strategy of the MoECCNR. It supports all other relevant legal and policy frameworks as an instrument to implement our commitment.

This action plan recognises and supports all other government macro-economic policies and key strategy plans. The plan aspires for a green economy that is more inclusive and achievable to create jobs and generate decent incomes for resource users. The main thrust of the plan is to guide and direct the implementation of the National Forestry Strategy, which is driven by DoF in partnership with the private sector, civil society and forest communities. The plan focuses on protection and development of the forest resources, and strengthen the productive and trade capacities within a green economy, to promote a vibrant private sector participation in enhancing competitive eco-tourism. Given the country's vulnerability to climate change, this plan galvanised implementation of adaptation and mitigation programmes to minimise the effects of climate-related hazards particularly on the productive sectors and the economic enabling infrastructure.

The implementation plan emphasizes the execution of our National Forestry Strategy which presents the following four pillars:

Pillar I: Governance of forest resources - strengthening governance systems and capabilities that drive the outcomes DoF seeks in sustainable and equitable dryland forest management;

Pillar II: Inclusive programme growth and diversity - fostering sustainable forest management that integrates the conservation and sustainable use of forest resources and provides environmental values, social and economic benefits;

Pillar III: Community forestry & alternative livelihoods - empowering and engaging local communities on sustainable forest management in their customary lands, providing them with alternative income sources and/or livelihood prospects; and

Pillar IV: Research and development - engaging on participatory research to develop relevant technologies and provide information that minimizes social, economic and ecological risks to investments in sustainable forest management.

Chapter 3: Strategy implementation

3.0 Introduction:

DoF is committed to reforming the forestry subsector and provide the highest quality of technical services to the population, while building a governing system that will respond squarely to the depletion of forest resources. DoF is determined to conserve Gambia's forestlands from degradation by promoting sustainable production, use and management of forest resources, and taking urgent action on climate change, so that available forest cover can support the needs of the present and future generations. DoF will promote people's social and economic rights to their forests with due considerations to the environmental values. DoF shall expand our partnership model by making communities and their organizations primary stakeholders in forest management. DoF will prioritize partnership linkages with the private sector and CSOs that have potential to solve the challenges of deforestation and desertification.

The strategic direction and intent articulates three fundamental elements that are believed to be intimately linked: *a) the ability and willingness of government to discharge its moral obligation to increase financing (budgetary allocation) the forest sector; b) the ability of DoF, and willingness of related sectors to promote sustainable forest management; and c) the abilities of forest communities to successfully implement their community forestry*, that will support our work in sustainable forest management. This signifies the ultimate goal of collectively tackling the challenges of climate change, deforestation and desertification in The Gambia. Based on our changing context, the department will position ourselves to implement the strategic pillars in order to actualise our vision.

3.1 Pillar I: Governance of forest resources

The state, through DoF have the sovereign right to develop, manage/ensure sustainable use of forest resources, but must ensure that activities related utilisation of forest resources do not cause damages to environments of neighbouring countries. Therefore, DoF will engage on institutional development and capacity building in all parts of the organisation. DoF shall enhance our professional and institutional ability for effective and efficient resource management, while providing forestry services with adequate number of quality staff at technical level for programming in the country.

3.1.1 Pillar goal - Strengthening governance of forest resources

In this pillar DoF will strengthen our governance systems and capabilities that drive the outcomes the department seeks in sustainable and equitable dryland forest management. DoF will develop coherent organizational processes and structures that supports execution of the strategy, build staff capacity for improved performance, while working towards reversing the trend of deforestation and desertification in the country in the next ten years.

3.1.2 Institutional Strengthening

DoF will strengthen its policy and institutional capacity, ensuring that strong organizational systems and structures are in place, while promoting results-based sustainable forest management.

i) Policy enforcement:

DoF will strengthen its institutional capacity for the enforcement of forestry Act and policy. We shall institute strong protection mechanisms for minimising unsustainable and illegitimate timber trade & excessive use of forest resource in The Gambia, and illegal cross-border timber trade. DoF shall enhance our staff ability to increase patrolling and monitoring in all forest sites, especially in protected and community forests.

i) Human resource development

DoF will equip staff members with leadership and technical skills at multiple levels to lead and manage organizational performance. DoF will build specialized staff capacity in thematic areas of our programmes; these will include, but not limited to integrated forest management, agroforestry, environment and climate change nexus, and livelihood diversification. DoF will engage University of The Gambia to provide higher training for forestry staff. In addition, shall be recruiting highly skilled and motivated individuals to create diverse and high performing teams.

ii) Forestry extension and capacity development

DoF will strengthen and build the capacity its extension system and further flatten the structure into the field to adequately engage partner CBOs in community forestry. DoF will be developing capacities at both regional and community level to promote a participatory approach in sustainable forest management, and build local capacities as well as work with partners (CBOs and NGOs) to empower communities to become primary stakeholders in managing their forest resources. DoF shall evaluate our current structure and re-organize our functions while bringing in new competences that may be necessary to implement our 10-year strategy. DoF will maintain our flat organizational structure, but bring in new competencies for our business development (for fund raising), M&E and communications (combined).

iii) Performance monitoring and evaluation (PME)

Monitoring of results and evaluation of impact of our programmes (innovations and initiatives) will be underscored in the next ten years. DoF shall develop our Results Framework (RF) that will present outcome indicators for our programme monitoring & evaluation. The RF will be informed by the new National Forestry Strategy, showing the hierarchy of outcome indicators with cause-and-effect linkages between the intermediary results and the next level objectives. **An interim impact evaluation** will be conducted every two years measuring changes (outcome indicators/results as set in the RF) attributable to our programmes.

3.1.3 Institutional Linkages and Collaboration

Many sectoral policies and laws are not harmonised. The sectoral rather than integrated approach to management of natural resources has proved to be inadequate in natural resource management. In addition, weak enforcement of laws and weak implementation of policies remain a major issue of concern in the ANR sector. Department of forestry will engage on integrated resource management programming and foster linkages with the Department of Agriculture and other related institutions nationally and internationally in order to tap relevant experiences that can help improve quality service delivery.

DoF will promote periodic meetings and effective collaboration with related sectors and projects, and capitalise on the inter-sectoral synergies. We shall advocate mainstreaming forestry in all national development plans & processes, while lobbying harmonisation of planning, programme linkages and effective interdependence with related subsectors and likely ecosystem projects.

3.1.4 Developing the communication systems

Promotion of knowledge generation, strengthening public awareness and carrying out information sharing, will support our forest programming. We will therefore, strengthen our

learning, packaging/documentation and communication systems and processes by developing a comprehensive communications strategy.

3.1.5 Resource mobilisation and fund raising

DoF shall actively pursue fund raising by lobbying increased government budgetary allocations and through diverse funding channels. DoF shall develop a comprehensive resource mobilization action plan targeting institutions, bilateral and multilateral agencies, major international foundations and philanthropies, and the private sector in raising funds for programming. Furthermore, donor management and reporting processes will be improved along with a framework that clearly details out the processes, roles and responsibilities, and timelines to be followed in fund raising. DoF shall ensure that a vibrant programme pipeline is in place for revenue growth; and improve our grant portfolio that explores and maximizes all funding sources.

Table 3: Strategic goals, objectives, outcomes, actions and period of implementation

Outcomes	Interventions	Output Indicators	Period
Strategy Goals: Strengthening governance of forest resources			
Strategic Objectives: Organisational effectiveness and coherence at national and regional levels for SFM			
Strong and dynamic forest sector	Organisational development at national & regional levels	Strong organizational systems and structures in place	By 2020
	Policy development & enforcement	Policy and institutional capacity strengthened	By 2022
	Institute results-based management		
	Impact measurement & organisational learning	Effective M&E unit and database established	By 2023
	Private sector partnership & collaboration	Vibrant forestry programme pipeline in place	By 2025
	Resource mobilisation and fund raising	Improved grant portfolio and revenue growth	By 2024
Healthy forest ecosystem	Joint planning and effective coordination with related sectors	Forestry mainstreamed in national development plans	By 2026
	Introduce ecosystems approach to forest resource management	Trends of deforestation and in desertification reversed	By 2028
	Institute strong protection mechanisms	Unsustainable and Illegal timber trade reduced; forest fires minimised	By 2021
	Introduce strong forest monitoring and patrolling	Excessive loss of forest resource minimised with control of forest fires	By 2021

3.2 Pillar II: Inclusive programme growth and diversity

Forests are a direct source of food, energy and income for the poorest people in the Gambia; they also store carbon and mitigate climate change, preserve water and soil health, and prevent desertification. The Department of Forestry, together with its partners and forest users will promote initiatives in sustainable forest management, focussing on conservation of biological diversity in protected forest areas; enhancing productivity in the forest ecosystems, promotion of Climate Smart Agriculture (CSA) and implementation of alternative livelihood initiatives in rural communities. The Reducing Emissions from Deforestation and Forest Degradation (REDD+) scheme offers financial incentives to developing countries for reducing emissions from deforestation and degradation while investing in low-carbon paths to sustainable development. The Department shall pursue this opportunity; and engage on programmes and policies that will enable us secure a sustainable greener economy with jobs of higher incomes.

3.2.1. Pillar goal: Sustainable management of forests and trees

In this pillar, we shall address forest degradation by minimising deforestation and reducing the rate of desertification, while sustaining the environmental values and services such as carbon sequestration and water, soil and biodiversity conservation; and increasing direct benefits to people through alternative livelihoods initiatives for employment and income generation.

The department will promote sustainable management of forest resources by ensuring increasing contributions of forests and trees to improve community livelihoods, and introducing initiatives for climate change mitigation and adaptation. DoF shall engage on vigorous awareness and surveillance programmes to protect forest resources from illegal exploitation, while working with key stakeholders on community livelihood enhancement in order to reverse the trend of deforestation and desertification in the next ten years.

3.2.2. Developing strong core programmes

In the strategy, DoF have articulated and defined our core programme areas: integrated forest fire management, development of agro-forestry practices, enhancing community forestry (including forest enterprise development & Marketing linkages), and nursery and plantation development in which we will focus and intensify our intervention, communication, funding, and learning efforts. Also outlined in the strategy, the department commit itself to long-term investments in sustainable forest management. Related to programming, evidence suggests that a long-term and integrated package of services in forestry is more cost effective and provides more sustainable benefits than short-term projects addressing a single core programme area. Therefore, DoF will design and implement inclusive and integrated forestry programmes that encompasses the four core programme areas. Key interventions have also been selected to guide what we do on the ground in each of these core programme areas. Such activities will have serious bearings on the reduction of forest degradation and increased contributions of forests and trees to improve livelihoods and contribute towards climate change mitigation and adaptation.

(i) Improved public awareness of ecological benefits:

DoF will employ Communication, Education and Public Awareness (CEPA) approach to generate active and informed participation of communities and stakeholders in Sustainable Forest Management (SFM). Public awareness raising and communication activities play a critical role in educating the public, thereby allowing them to effectively participate in SFM decision-making. CEPA will enable us build trust, understanding and shared agreements for action, as well as help people work together and innovate, and spread information, knowledge, values and goals. CEPA supports capacity development so that various actors can take responsibility for forest biodiversity. We will use communication tools such as the forest outlook, tailored programmes in community radios, with trained drama groups (“Kagneleng”) in presenting various opportunities available in forest management for ecological but also financial benefits for communities.

(ii) Establishment of additional protected forests:

The Department will endeavour to increase forest area coverage by establishing additional protected forests all over the country: government managed forests, community managed forests and privately managed forests in areas without protection status.

DoF will engage private sector in the establishment of private forest reserves, continue working with communities to graduate more community forests, add impetus with individual forest

owners and joint managed forest parks to venture in ecotourism in community managed and private owned forest parks.

(iii) Establishing national and regional ecological networks:

DoF has been building national and extensive community level ecological networks in the rural areas, particularly, where we establish community forests; and with our innovative programs, we are steadily widening our intellectual frontiers in sustainable forest management.

The initiatives are evidence-based, and these have been increasingly mirrored in our development practice and policy. We shall engage these ecological networks of CBOs in our forest fire management, particularly around community forests and community protected areas.

(iv) Restoration of threatened ecosystems in NBR & CRR North:

The Department of Forestry with its mandate, will enforce regulations to identify critical ecosystems and establish more forest parks in threatened ecosystems in NBR and CRR North in our efforts to address and reverse desertification trends. We shall implement evidence-based sustainable forest management initiatives in greening the two regions.

(v) Promotion of forest sites for conserving biodiversity and genetic resources:

Through its partnership with the Department of Parks and Wildlife Management, DoF will continue diversifying forest products with the development of ecotourism programmes in areas such as Bijilo Monkey park, Kassagne and other new sites. DoF will also pilot ecotourism initiatives in some community managed forest parks to enhance revenue generation for improved livelihood in forest communities.

(vi) Partnership with the civil society

As second-generation of concerns such as equity, good governance, conflict management and social justice began to gain momentum in community forestry, there is increased demand for new sets of skills and institutions to effectively facilitate the processes. More CSOs have been emerging in forest management in the Gambia. They have been working in community development, organizing CBOs and enhancing their capacities to access livelihood services and assets. In line with the National Forestry Strategy 2019-2028, DoF will provide necessary services to Community Forest User Groups. In the past, roles of these groups were particularly contested in the forestry sector, as the state has been the policy maker, owner, manager and facilitator of forest management processes. Recent programmatic approaches in sustainable forest management seek their contributions as our scope of work has gradually expanded from conservation to empowerment of forest communities to responsibility of protecting and managing their forest resources. The alarming rate of natural resource degradation in The Gambia, motivated CSO participation in sustainable resource management, some exclusively working with community forestry. With emergence of the Federation of Community Forest Users (NACOFAC), there exists a strong civil force in the forest sector. This has influenced policies in favour of local resource owners and users.

(vii) Partnership with the Private Sector

DoF will seek participation of the private sector in sustainable forest management, and forest-related enterprises. Our programming in forestry shall integrate conservation and sustainable use of forest resources with relevant policies within the context of our socio-economic, cultural,

political and environmental circumstances. DoF will improve its institutional structures and communication systems to ensure effective participation of all stakeholders in working towards sustainable forest programming. Standard Chartered Bank is a valuable partner of DoF in their restoration programme, it is imperative to expand this cooperation. There are potentials to leverage the bank support in providing loans to young Gambian professionals who may be interested to establish private forest farms and mills to process timber and discourage its exportation. Timber and charcoal importation could be supported by the bank, and this can reduce pressure on forest resources and create jobs for the youth.

(viii) Enhancing alternative livelihoods in forest communities:

DoF will introduce a number of alternative livelihood initiatives such as handicrafts, beekeeping, woodlots, “Tobaski” Ram fattening, women’s cottage industries, and production of non-timber forest products (NTFP) for household income generation in selected forest communities. Ecotourism has the potential to provide substantial benefits to forest communities, and would be a sustainable effort to conserve forest resources, if properly managed. In partnership with the private sector and forest communities, DoF will encourage setting-up several tourist camps that will be carefully developed and well operated in addition to providing interpretation of significant natural and cultural themes of the area to enhance visitor enjoyment and appreciation of nature.

3.2.3 Conservation of biological diversity and forest protection

DoF will actively establish representative natural forests and, where possible, restore natural forests on appropriate sites. The department will manage planted forests in ways that benefit biodiversity, both within the planted forests, and in areas of natural forest that are retained within the planted forest landscape (e.g. establish planted forests on degraded sites and retain areas of high biodiversity value protected). These areas will be of benefit to promote ecotourism for revenue generation to the public and the private investors.

3.2.4 Dryland forest ecosystems development and restoration

With the implementation of some of our projects, we will encourage farmers to practice agroforestry, planting a wide range of working trees on their farm lands and in rural landscapes. Among these will be fertilizer trees for land regeneration; fodder trees that can improve smallholder livestock production; soil health and food security; medicinal trees for pest and disease control; fruit trees for nutrition; timber and fuelwood trees for shelter and energy. Many of these trees are multipurpose, providing a range of benefits. The Ecosystem based Adaptation (EbA) project will assist in the promotion of such trees in CRR, LRR and URR for adaptation purposes. This initiative will assist in the establishment of regional nurseries of indigenous woodlot trees for the replenishment of degraded land areas in forest communities; and promote the proliferation of woodlots in local communities. The restoration of degraded mangrove areas will be prioritised to assist in the preservation and or maintenance of existing breeding ground of our fish and fishery species. This will also have great impact on the conservation of the fauna and avi-fauna of the country.

3.2.5 Climate change mitigation and adaptation initiatives

Forests can indirectly help people adapt to climate change. Regional consultations on the strategy development confirmed that DoF existing programmes/projects (Drylands, the green belt, etc.) are successfully reducing wind erosion and rainfall runoff. DoF shall continue to invest in our tree planting activities as part of our forest land enhancement efforts. DoF shall create additional forest reserves to improve local economies, if carbon credit is realized for the benefit of forest communities. The initiative will further increase habitat for wildlife for possible tourist attraction;

while making the forests more resilient to changes, and make possible alterations of forest ecosystems less severe. With some of its projects presently under implementation, DoF has finalised mainstreaming Climate Change in its policy and is already piloting Sustainable Land Management (SLM) in affected areas of the country. The EbA project will go a long way in addressing climate change impacts in CRR, URR and LRR. We will further lobby related sectors, partner civil society organisations and private sector to mainstream climate change mitigation and adaptation in their policies and practices.

Table 4. Strategic goals, objectives, outcomes, actions and period of implementation

Outcomes	Interventions	Output Indicators	Period
Strategy Goals: Sustainable management of forests and trees			
Strategic Objectives: To reduce forest degradation and increased contributions of forests and trees to improve livelihoods and contribute towards climate change mitigation and adaptation			
Strong and dynamic forest sector	Rehabilitate degraded lands and re-establish native forests	# Hectares of degraded land rehabilitated	By 2026
	Promote conservation and enhancement programmes of dryland forests that are threatened	Improved dryland forests	By 2024
	Develop & implement financing mechanisms		
	Establish additional protected forest areas and forest plantations in balancing the ecosystem	No. and area of additional protected forests and plantations	By 2027
	Establish private sector plantations and forest sites		
	Engage communities and their CBOs on ecotourism	# of operational ecotourism in place	By 2020
	Promote agro-forestry in farm lands and landscapes	# of farms & hectares with agroforestry	By 2021
Implement alternative livelihood activities in communities	# of communities & h/h benefiting from livelihoods	By 2021	
Healthy forest ecosystem	Conduct communication, education and public awareness (CEPA) campaigns on maintaining forest ecosystem	# of communities covered with CEPA campaigns	By 2023
	Establish national & regional ecological network	# networks established	By 2022
	Implement climate change mitigation and adaptation activities	# households engaged on Climate Smart Agriculture	By 2025
	Engage on restoration of forest ecosystem	# Hectares of degraded land restored	By 2026

3.3 Pillar III: Community forestry & alternative livelihoods

DoF will continue to champion and expand community forestry by supporting interested communities in the countryside. Programme staff will engage communities to identify their CF sites, guide them through the three CF phases: preparatory, preliminary and consolidation stages; train and equip them with relevant skills and techniques to manage the forest in an ecologically, socially and economically sustainable way. DoF shall actively be engaging communities in participatory forest management: eliciting their participation in planning, designing, implementing development and conservation initiatives in their forest lands, as well as monitoring and evaluation of services intended to satisfy their needs and aspirations.

3.3.1 Pillar goal: Increased community participation in sustainable forest management

In this pillar, DoF shall increase the forest cover under community forestry by **116,000ha** by end of 2028. The primary objectives are to ensure sustainable management of forest resources, while meeting the basic needs of rural communities: creating jobs and generating incomes, and improving people's living conditions. DoF regional officers shall extend our technical and

supportive roles in coordinating and monitoring the overall CF programming, supporting in the implementation process, while ensuring appropriate procedural and legal methods, as well as adherence to the guidelines. DoF shall coordinate and facilitate collaboration with other organization; and process PCFMAs, CFMAs and subsequent agreements with local communities.

3.3.2 Local capacity development and inclusive social forestry

The DoF shall be committed to local capacity building by undertaking participatory training programmes involving all actors in community forestry. This will include providing knowledge and equipping key stakeholders (beneficiaries, programme staff, partners, CBOs and local associations) with skills and tools to enable them play their part.

DoF shall be empowering forest communities and their organizations achieving self-determination by promoting the development of community resource base (human, physical, natural and financial), and undertaking interventions that are responsive to people's ever changing needs and conditions.

3.3.3 Optimising environmental and socio-economic benefits of forests for society

The potential contribution of the forest sector to sustainable development by conserving the environmental values, providing rural employment and incomes, renewable resources and the protection of local environments is significant. DoF will therefore continue to prioritise conservation and enhancement of biodiversity, and participatory forest management – community forestry to enhance the social and economic benefits of sustainable forest management. DoF will establish additional community forest areas in balancing the ecosystem, and employ effective forest extension mechanisms – both formal and informal – that will encourage communication between different interest groups and enable stakeholders to become actively involved in forest development.

3.3.4 Market Analysis and Development (MA&D), and Ecotourism

DoF will continue to prioritise MA&D and ecotourism in our community-based forestry programming. Community-based enterprise development (CBED) will be the hallmark of our programming; through which we shall support capacity building to create small-scale tree and forest product enterprises. It is believed that such rural enterprises do provide local communities with better opportunities to benefit from forest resources, while also creating greater incentives to sustainably manage and protect the resources. MA&D team of DoF will collaborate with relevant sectors and projects in local capacity development taking into consideration social, technological, legal and commercial aspects, while providing a wide scope for understanding relevant market systems and thus avoiding business failure in small and medium scale enterprises of wood products, and NTFP harvesting. DoF shall promote participatory planning and development of business strategies, involving and preparing forest entrepreneurs in managing investments in forest products, making it easier for them to access external capital such as those related to Carbon Finance.

Benefits of Market Analysis and Development

- Enable forest owners, private sector, and local communities to participate in forest conservation initiatives, and in planning and managing protected areas.
- Promote the participation of all stakeholders, including local communities, forest dwellers and women in planning and implementing national forest policies.
- Promote alternative livelihood initiatives in forest communities
- Establish public education and awareness programmes emphasising the importance of sustainable forest management and conservation of biodiversity

- Implement policies and mechanisms to secure land tenure and to promote fair and equitable sharing of benefits from forest goods and services.
- Encourage urban forestry through establishment of green space and urban parks in urban and semi-urban areas for landscaping and recreational purposes
- Enhance the involvement of women in forestry.

Table 5. Strategic goals, objectives, outcomes, actions and period of implementation

Outcomes	Interventions	Output Indicators	Period
Strategy Goals: Increased community participation in sustainable forest management			
Strategic Objectives: To increase community forest cover areas by 116,000ha for employment creation and sustainable livelihood			
Empowered and engaged forest community	Engage communities in forest conservation and management of protected forest areas	# of additional Community Forests established and hectares of land cover	By 2020
	Promotion of alternative livelihood initiatives	Enhanced social and economic values & livelihood benefits of forests & trees	By 2022
	Conduct public education and awareness programmes	# of CF management trainings workshops and seminars conducted	By 2019
		# of CF Committees with effective leadership and management capacities	By 2023
		# of CF Committees trained and number of participants trained	By 2025
Involvement of women in forestry.	% age of youth and women self-employed in wood and NTFP trade	By 2024	
Strong and dynamic forest sector	Establishment of green space and urban parks	# of CFs with 20-metre-wide green-belt for fire prevention	By 2025
	Promotion of full participation of stakeholders	# of community forestry fund established	By 2021
		# of rural vendors/families trading wood and NTFP & income levels	By 2028
		# of CFs with silvicultural and other productive trials	By 2026
Healthy forest ecosystem	Implementation of policies and mechanisms to secure land tenure	# of additional forest established	By 2024
		# of agreements signed and approved with community forest management	By 2027
		# of CFs with silvicultural and other productive trials	By 2026

3.4. Pillar IV: Enhancing research and development

Forest management is defined as the practical application of scientific, economic and social principles to the administration and working of a forest estate for specific objectives. The history of sustainable forest management in The Gambia is very recent, less than twenty years, and a considerable amount of knowledge is still needed to refine forest management techniques. This deficit can be gradually solved through applied research.

Unfortunately, due to human and financial constraints, applied forestry research is not well developed in The Gambia and has been supported up to date by projects. Existing research should be continued and additional research topics should be identified according to their priority and their feasibility. Without appropriate research, current management strategies cannot be further improved and may result in a slower or less effective development of the forestry sector.

3.4.1 Pillar goal: Improved Program quality, learning and documentation

This Action Plan recognises the value of research and information systems to enable forestry practitioners to improve programme outcomes. DoF intend to facilitate ecological research and monitoring systems (including long-term monitoring plots) aiming to provide useful guidance on forest dynamics, regeneration and genetic diversity of valuable tree species.

DoF shall collaborate with related research institutions to collect, synthesize, analyse and share data on forest biodiversity based on permanent forest plots, inventories and other sources to make these accessible to forest planners, forest managers and other stakeholders.

DoF shall make effort to create systems such as learning groups, organize exchange working visits in neighbouring countries in the sub-region for human resource development. DoF will assess our communication needs and develop our information management and communication strategy to be fully utilised as an outlet to convey core messages of our work to partners, stakeholder and some key audiences. DoF shall further prioritise staff capacity building; and will improve staff commitment through promotion as well as introduction of risk allowances while ensuring effective deployment of staff to the countryside. DoF will prioritise the following research activities in the next ten years:

(i) Collect data on forest biodiversity from permanent forest plots

Forest monitoring is especially important because of the high level diversity of plant species in the country. This is especially true in areas where rates of forest degradation and fragmentation are high. The information generated by the forest inventory and monitoring system not only feeds into national environmental policies but also plays an increasingly relevance to international conventions. DoF will establish statistical sampling plots as a scientifically founded methodology. To cluster plots on a systematic sample grid will allow regular data collection on forest biodiversity for foresters and other biodiversity stakeholders.

(ii) Assessing and documenting local knowledge of indigenous tree species

Tree domestication initiatives, aiming at conserving useful native species, as well as providing small-scale farmers more options for income generation should be supported. This should be based on thorough study of existing knowledge of range of available tree species. The DoF will conduct extensive participatory research engaging focus groups of knowledgeable farmers, wood processors and market dealers of tree products for data collection on indigenous native species. With the technical support of the Department of Parks and wildlife management on Access and Benefit sharing from the use of genetic resources, DoF will facilitate the capacity building of the forest users and dweller groups to document existing knowledge.

(iii) Mapping - broad site-species and priority species for the country

With the technical support of the GIS unit at the National Environment Agency, the mapping unit of the Forestry department will conduct a mapping exercise of selected priority species throughout the country in order to establish baseline data for future monitoring purposes.

(iv) Growth and yield studies of prioritized and potential tree species

Through a technical support of the UTG (graduate and postgraduate internship programmes) and NARI, DoF will embark on the selection of priority tree species to determine their growth and yield potentials.

(v) Staff capacity building on adaptive research on high-quality genetic planting materials

The DoF will strengthen the research unit by providing relevant research tools and building staff capacity to a professional level in order to conduct adaptive research on high-quality genetic planting materials. This will be done in collaboration with the local herbalists to benefit from their indigenous knowledge on such genetic planting materials.

(vi) Participatory research on effects of climate change on our forest ecosystems.

Forests are part of the solution towards addressing the impact of climate change, because they can sequester greenhouse gases from the atmosphere, offsetting some of the emissions from burning fossil fuels. The department is building the resilience of public and private forest ecosystems to increase related goods and services including carbon sequestration as part of our adaptation processes. The goal of our adaptation initiatives is to reduce the vulnerability of ecosystems to climate change and increase their resilience to climate-induced changes in ecological conditions.

DoF have limited capacity (knowledge, experience and resources) to generate appropriate technologies to support our climate change adaptation and mitigation efforts. Our knowledge base derived from previous and ongoing projects includes a) enhancing climate resilience by restoring vulnerable ecosystems that underpin community livelihoods (e.g. community forestry); and b) monitoring the socio-economic and environmental benefits of adaptation interventions. DoF will draw upon these experiences to collaborate with other stakeholders (DPWM, DWR, NARI, UTG, NEA, etc.) to explore opportunities for participatory research on effects of climate change on forest ecosystems. This will help inform our adaptation programmes while countering the negative effects of climate change and explore new opportunities. Forest managers can use the results to monitor the impact of climate change on our forests in order to adapt accordingly.

(vii) Economic analysis - Cost-Benefit Analysis on selected species for investors

Cost –Benefit Analysis (CBA) estimates and totals up the equivalent money value of the benefits and costs of forest projects to establish whether they are worthwhile investments. DoF shall use the results of the findings on Growth and Yield studies to conduct such assessments to establish the profitability and choice of prioritized species to guide investors.

(ix) Periodic market research – demand and consumption trend analysis on NTFP.

DoF will continue to embrace the new concepts and approaches such as Market Analysis and Development, Gambia Forest Communication Concept, and community eco-tourism approach in the next ten years. DoF will organise periodic market research – demand and consumption trend analysis on NTFP to forecast market of the tree species.

3.4.2 Forest inventory and forestland classification

The Gambia has undertaken three national forest inventories since the establishment of DoF in 1976: 1981/82, 1997/98, and 2008-2010, and the next cycle of assessment will be due by end of

2018. With the recent population pressure on our national forests and land use changes, subjected to severe unsustainable exploitation (and deforestation) and accelerating desertification, the resources remain largely unknown to planners and policy makers.

The changing population trends and pressures therefore, call for accurate and reliable data for the development of forest management plans, policies and Acts. In accordance to the National Forestry Act, DoF shall prepare and conduct a national forest inventory in 2019 in order to generate reliable information on forest resources for informed management decision making; policy formulation, institutional capacity building, planning, conservation and utilization of natural resources on a sustainable basis

3.4.3 Strengthening Kafuta Forestry Training Centre

DoF is aiming to promote learning opportunities at tertiary level education; by up-grading Kafuta training to a National school of forestry and wildlife that will ultimately be linked to the University of the Gambia for providing advanced trainings in natural resource management leading to Diploma level, thus, equipping young professionals in forestry and related sectors. With the blessing of Ministry of Environment, negotiations have been advanced on this arrangement, and the University Authorities have accepted the idea in principle, and the initiative is supported by the related government departments and external agencies. The training centre shall be further equipped to provide services in forestry research and technology generation.

Through the EbA Project support, the DoF is poised to substantially develop Kafuta Forest Training centre in infrastructure development. Once the School is homologated with the UTG, the lecturers engage on curriculum development. The University, through its Department of Physical and Natural Sciences will cover the diploma training programme at the training centre. DoF will be proactive to advance the negotiations and all other relevant formalities on this arrangement to conclusion.

Table 6: Strategic goals, objectives, outcomes, actions and period of implementation

Outcomes	Interventions	Output Indicators	Period
Strategy Goals: Improved Program quality, learning and documentation			
Strategic Objectives: To establish research and information systems in enabling forestry practitioners to improve outcomes in sustainable forest management			
Strong and dynamic forest sector	Forest inventory and forestland classification	Forest inventory conducted	By 2019
	Assessing and documenting local knowledge of indigenous tree species	Local knowledge of indigenous tree species documented	By 2027
	Staff capacity building on adaptive research on high-quality genetic planting materials	Staff capacity on adaptive research developed	By 2021
	Economic analysis - Cost-Benefit Analysis on selected species for investors	Economic analysis on selected species conducted	By 2025
	Strengthening Kafuta Forestry Training Centre	Kafuta Forestry Training Centre Strengthened	By 2022
	Periodic market research – demand and consumption trend analysis on NTFP	Periodic market research on NTFP conducted	Annual
Healthy forest ecosystem	Growth and yield studies of prioritized and potential tree species	Growth and yield studies of prioritized tree species conducted	By 2025
	Participatory research on effects of climate change on our forest ecosystems	Participatory research on effects of climate change conducted	By 2024
	Collect data on forest biodiversity from permanent forest plots	Data on forest biodiversity from permanent forest plots conducted	By 2019
	Mapping - broad site-species and priority species for the country	Mapping –on priority broad site-species species conducted	By 2022

Chapter 4: Core Programme areas

4.0 Introduction

As outlined in our strategy, DoF is committed to long-term investments in programmes that will halt deforestation and combat desertification. Related to programming, evidence suggests that a long-term and integrated package of services in participatory forest management is more cost effective and provides more sustainable benefits than short-term projects addressing a single area of concern. Therefore, DoF will design and implement multi-objective programmes consistently in the regions, which encompass the four core programme areas. Key interventions have also been selected in the strategy to guide what the department do on the ground in each of these core programme areas. These key interventions have been chosen because there is evidence of their effectiveness in producing positive outcomes in sustainable forest management.

4.1 Programmatic Approach

Our approach to tackling deforestation and desertification will be holistic, seeking to understand and act on the overall context, as well as the needs, aspirations and circumstance of the forest communities. DoF shall employ four broad approaches to our programming: 1) Capacity building approach; 2) service provision; 3) Sustainable forest management; and 4) Integrated Landscape Approach. With these approaches, DoF will effectively execute our core programme areas to achieve our strategic outcomes. DoF shall strengthen our institutional capacity to improve governance at all levels. Participatory decision-making involving forest stakeholders in the defining of key interventions will be encouraged, thereby enhancing an enabling environment for investment in forestry and forest enterprises. DoF shall combine service provision with policy enforcement, ensuring that our forestry policy and practice are based on timely and reliable information on appropriate technologies in our programming. Sustainable forest management shall be the hallmark of our programme approach. DoF shall embrace investments in sustainable forestry, while supporting stakeholder/clients' pursuit of a forest-smart development trajectory through an integrated landscape approach. This approach clarifies the dynamics between various land uses, including forests and agriculture. Supporting forest-smart interventions will not only ensure adverse impacts on forests and their biodiversity are avoided or minimized, as it also identifies increasing opportunities of productivity and resilience of other sectors.

4.2 Core Programme Areas

Table 7: Summary of Core Programme Areas

Core Programme Area	Key Interventions
Integrated forest fire management	<ul style="list-style-type: none"> Strengthening forest governance and policy enforcement Participatory forest fire management Building forests' adaptive capacities and resilience
Development of agro-forestry	<ul style="list-style-type: none"> Research – technology generation and dissemination (extension system) Integrated agro-forestry - combining perennial and multi-purpose crops Establishment of food forests in rural landscape
Community Forestry	<ul style="list-style-type: none"> Local capacity development and inclusive social forestry Alternative livelihoods in forest communities Establishment of additional forest protected areas Market Analysis and Development of forest resource-based businesses
Nursery and plantation development	<ul style="list-style-type: none"> Nursery establishment/expansion to support public & private plantations Restoration through reforestation/revegetation Joint forest – park management Climate change mitigation and adaptation initiatives

4.2.1 Integrated forest fire management

i) Introduction

Forest fires is a common feature of the rural landscape in the Gambia and more than 70% of the country's forests and grasslands suffer yearly through bushfires⁹ especially during dry season. Many land-use systems are vulnerable to forest fires. Widespread and uncontrolled burning is common and has been destroying large areas of our rangelands, woodlands and forests. Some fires are started deliberately by livestock owners seeking to promote a green flush for their animals, by hunters clearing vegetation to catch their prey more easily, by people creating firebreaks around their homes and orchards or seeking to improve visibility, or simply by pyromania. The fires are also ignited by people clearing land for cultivation, smoking out beehives and wild honey collection, making charcoal, cooking or trying to keep warm, cross-border fires etc. The uncontrolled fires can spread accidentally from their sources into a distant surrounding bushes, often crossing into different vegetation types. After a decade long of frequent, sustained and intense forest fires, many woodlands in the Gambia are now at a permanent state of damage and becoming unbearable.

ii) Some Lessons

Fire is the primary tool for clearing land for crop production in The Gambia. The majority of forest fires are caused by human activities usually associated with land-use practices. Community forestry provides local communities with access to all benefits of forest products within their customary land; and assist them in adapting traditional land use systems. Through this the communities recognize the value of trees and forests, and gain a vested interest in their protection as permanent sources of income and/or livelihood. Amongst the lessons learnt include that communities are now willing to contribute to protect and maintain forest resources, and slow down the eventual degradation. There have been some positive attitudinal changes towards management of forest resources, and collaboration with DoF in forest fire management triggered by the increasing local forest ownership is a healthy behavior. There is less damage caused by unwanted forest fires in community forest areas, suggesting that increased participation, access and forest ownership can lead to effective fire prevention & control.

Community-Protected Areas (CPAs), by which communities are responsible for the management of forestlands adjacent to their community forests, demonstrate a shift from centralised and state driven forest fire management towards decentralised community-based management systems. DoF believes that Community-based Fire Management (CBFiM) will help us to resolve the very conflicts in institutional rights and authority that have inhibited forest conservation and the sustainable utilisation of forest resources. DoF believe in the fundamental elements in integrated forest management:

- a shift from state control forest fire management to the local level forest fire management
- a change from state institutional (DoF) administration of forest fires to local institutional (CBO) forest fire management
- a recognition that sustainable forest fire management cannot be accomplished without considering the potential impact (positive or negative) of fire on local institutions.
- a change in the day-to-day management of forest fires away from conflict-inducing regimes of police against user/culprit towards one in which the local user/culprit is both self-regulating and partly responsible for protection activities.
- provide a range of supporting activities to invoke institutional change: policy reform; enabling legislation; institutional development at the local level; CBFiM authority and implementation; and public awareness of policies and legislation.

⁹The National Biodiversity Strategy and Action Plan (2015 – 2020)

Participatory forest management practiced in our work reflect our fundamental commitment to the innate worth and capacity of the people to lead their forest management on negotiated terms. This made us believe that transformational change in forest fire management can come from within the communities. They also give meaning to our conviction that forest communities themselves can be the main actors in their forest fire management.

Table 8: Forest fire management programme coverage – 2019 to 2018

Intervention	Activities	Output	Time frame
Goal: Enhance forest ecosystem goods and services			
Objective: Minimise incidences and frequencies of forest fires in forestlands & natural vegetation			
Strengthening forest governance	Improve forest policies and regulations	National Forestry Policy developed with gender & youth mainstreamed	By 2020
	Strengthen forest governance	Forestry Act and policy enforced	By 2021
	Vigilant patrolling & monitoring of forest ecosystems	Improved honey & reduced charcoal production,	By 2021
	Institute strong protection mechanisms	Incidences and frequency of forest fires minimised	By 2023
Community-based (Participatory) forest fire management	Address the causes and sources of forest fires	Reduced incidence and frequency of forest fires	By 2023
	Establishment of green belts	# of CFs with 20-metre-wide green-belt for fire prevention	By 2022
	Establish national & regional youth ecological networks	# of networks established for forest fire prevention and control	By 2022
	Early-dry-season control burning of fire hotspots	# and area of forestlands covered with early-dry-season burning	By 2021
	Active involvement of the local people in forest fire management	# of community CBOs participating in forest fire management	By 2023
Building forests' adaptive capacities and resilience	Establishment of woodlots in urban and semi-urban areas	# of urban and semi-urban woodlots established	By 2025
	Planting of fire resistance trees in CFs and Protected Areas (CPAs)	# and area of forestlands planted with fire resistance trees	By 2027
	Strengthen forest genetic conservation in CFs, CPAs and private forests & plantations.	# and area of forestlands covered with genetic conservation	By 2028

4.2.2 Agro-Forestry

i) Introduction:

Agroforestry is the intentional integration of agricultural and forestry-based land-use systems to provide tree and other crop products, and at the same time protect, conserve, diversify, and sustain vital economic, environmental, human, and natural resources. Integrating agroforestry practices in our watershed and landscape management can transform our agricultural lands into stable, resilient, diverse, aesthetic, and sustainable agricultural land-use systems. Agroforestry practices increases crop production, control soil erosion and sedimentation, provide multiple benefits including wood products, sequester and biodegrade excess nutrients and pesticides, moderate microclimates, and diversify habitats for wildlife and humans. Agroforestry systems sequester carbon and serve as a renewable energy source. Agroforestry can further support rural economies by enhancing the production capabilities of agricultural lands. In spite of its potential, the agroforestry application and extension activities are limited, unconnected, and minimally funded in relation to the need and interest.

ii) Agroforestry in The Gambia

Although land-use systems where annual crops and woody perennials (eucalyptus, cashew trees and other economic trees - in the form alley or strip cropping) have been used on the same land management units, agroforestry is not well developed in Gambia's farming systems. While mixed farming of trees and annual crops (as a major crop) has served well in helping to establish agroforestry as a farming system at local level, it has tended to focus on mixtures of few species in arable crop farms. Thus, agroforestry is not widespread as a farming system in The Gambia. Whereas farmers and forest dwellers lack resources for 'modern agroforestry' as a significant land use, DoF and partner NGOs are promoting the practice by either integrating many tree species in various productive niches of farmlands.

iii) Promoting agroforestry as a farming system

DoF regional extension system shall encourage farmers to increase their efforts in agro-forestry supporting them to combine perennial, multi-purpose crops (i.e. plants of trees that are planted once, but can continue to produce yields for many years) with annual agricultural cash crops. This will enhance the productivity of agricultural systems by simulating natural ecological processes. DoF will further support them to tailor their agricultural systems to mimic natural ecosystems (such as forests), but provide comparatively more adaptation and commercial benefits than the traditional cropping systems. Programme staff will introduce establishment of food forests – these forests simulate the function of natural ecosystems but are engineered to contain a comparatively higher density of useful species such as edible food crops, or nitrogen-fixing tree or shrub species (e.g. nitrogen-fixing trees; canopy trees; climbers such as vines or beans; etc. Over the next ten years, DoF shall be promoting the following three priority agroforestry systems:

a) Silvoagricultural where silviculture will be the primary aim of the farmer's land use. This is where trees constitute the major component, while agricultural crops are integrated with them.

b) Agrosilviculture where agriculture will be the primary (major) component of land use and trees are secondary, e.g. multi-purpose trees on farmlands, hedgerow or alley cropping, intercropping of trees, etc.

c) Silvopasture where trees constitute the primary (major) component of land use with pastures as secondary, e.g. for grazing in the forest.

The following generic activities will be carried out in implementing the three agroforestry systems:

Summary of programme activities – 2019 to 2028

- Technology generation, dissemination & systems integration in agroforestry; and technical assistance to landowners.
- Providing and offering options in agroforestry systems, and advice to improve the social, economic, and environmental aspects of agroforestry development and conservation.
- Agroforestry practices include windbreaks, alley cropping, tree/pasture systems, live-fences, riparian forest buffers, tree/specialty crop systems, forest/specialty crop systems (forest farming), and fuelwood plantations.
- Promote technology transfer, while building local capacity on sustainable agroforestry management.
- Strengthen partnerships and cooperation among agencies, and form alliances among stakeholders: university, local communities and private sectors to develop, disseminate, and apply agroforestry technologies.
- Interagency cooperation and concerted efforts is necessary between the forestry, agriculture and related subsectors to efficiently/effectively implement agroforestry.

- Closer linkages are required between ongoing agricultural systems and natural resources extension programmes in order to be effective.

Regional forestry staff will also raise awareness on other systems: a) pastoral silviculture for grazing where pasture will be the primary component while trees are secondary; b) agrosilvopasture which is a combination of crops, trees and pasture in which crops and trees are dominant over pasture; and c) silvoagropasture – again a combination of trees, crops and pasture in which trees are dominant over the other components.

DoF will also encourage farmers to plant useful, nitrogen-fixing tree species on the edges of agricultural lands and/or upland rice fields, degraded roadside verges and riparian areas. This approach has been tried by few farmers in The Gambia, and elsewhere in Senegal (neighboring country) to increase soil fertility without addition of fertilizer. The selection of nitrogen-fixing tree species for use in agricultural areas generally prioritises species which will increase soil fertility through the deposition and decomposition of leaf material.

Table 9: Agroforestry programme coverage – 2019 to 2018

Intervention	Activities	Output	Time frame
Goal: Sustainable management of forests and trees			
Objective: To increase the generation of ecosystem goods and services through establishment of climate-resilient natural resource base			
Silvoagricultural	Public awareness raising & education on integrating silvoagricultural practices in the farming systems	Public awareness raising conducted in 250 communities	By 2020
	Piloting silvoagricultural practices with wooded tree species simulating natural ecological processes	750 master farmers in 250 villages practicing silvoagricultural activities	By 2023
	Extension of silvoagricultural practices as a farming system	3,750 farming households practicing silvoagriculture	By 2028
Agrosilviculture	Public awareness raising & education on integrating agrosilvicultural practices in the farming systems	Public awareness raising conducted in 350 communities	By 2020
	Piloting agrosilviculture practices with economic tree species simulating natural ecosystem - food forests	1050 master farmers in 350 villages practicing agrosilvicultural activities	By 2023
	Extension of agrosilvicultural practices as a farming system – establishing food forests	5,250 farming households practicing agrosilviculture	By 2028
Silvopasture	Public awareness raising & education on integrating silvopastoral practices in the farming systems	Public awareness raising conducted in 150 communities	By 2020
	Piloting silvopastoral practices with economic tree species simulating natural ecosystem	450 pastoralist (h/h) practicing silvoagriculture	By 2023
	Extension of silvopastoral practices as a farming system	2,250 pastoralist (h/h) practicing silvoagriculture	By 2028

5.2.3 Community Forestry

i) Introduction

As a combined mitigation and adaptation measure, community forestry is aimed at enhancing the resilience of communities and ecosystems through the management of forest systems and resources for continuous supply of products for sustainable livelihood. It is a process of empowering the communities with legal rights, skills and necessary knowledge to sustainably

utilize their natural resources and conserve the remaining biodiversity. DoF shall develop the business capacity of forest entrepreneurs through training on the use of Market Analysis and Development (MA&D) methodology.

This will enable communities to facilitate the development of community-based enterprises utilizing products and services from community forests, while reversing the trends of deforestation and forest degradation, increased contributions of forests and trees to improve livelihoods, and contribute to climate change mitigation and adaptation.

ii) Promoting Community Forestry

Community participation was found to be a rewarding approach to forest resource management. It contrasts with the approaches of the past in which forests were administered by Government authorities without involving the local population and without receiving much support from them. DoF began promoting community forestry to overcome these challenges. In February 1998, the department published 'Community Forestry Implementation Guide' as an official manual guiding the implementing community forestry pursuant to the provisions of the Forest Act and Forestry Regulations and in accordance with the Forest Policy and the Gambian Forest Management Concept.

In line with our Community Forestry Implementation guide, DoF will continue to champion and expand community forestry in the country. The department is committed to the initiatives and shall be supporting interested communities to establish their community forests. Programme staff will engage communities to identify their CF sites, guide them through the three CF phases: preparatory, preliminary and consolidation stages; train and equip them with relevant skills and techniques to manage the forest in an ecologically, socially and economically sustainable way. With additional CFs in the countryside, DoF shall extend its technical and supportive roles in coordinating and monitoring the overall CF programming, supporting the divisional forest officers in the implementation process, while ensuring appropriate procedural and legal methods.

DoF will regularly monitor and evaluate the country-wide CF development and implementation procedures especially in terms of its sustainability and adherence to the guidelines; coordinate and facilitate collaboration with other organization; and process PCFMAs, CFMAs and subsequent agreements which may be made between local communities and DoF. The department will further solicit and encourage effective participation of all relevant stakeholders including regional local governments in CF; and assist in identifying, developing, and testing silvicultural techniques appropriate to community forest management. The following generic activities will be implemented in the next ten years:

Summary of programme activities – 2019 to 2028

- Enhance Social and economic values and livelihood benefits of forests and trees; and facilitating linkages between producers and national, regional, and global levels
- Market analysis of forest products and services to increase contribution of community forestry to local livelihoods, thus making it more economically viable land-use option;
- Analysis and knowledge of social and economic factors in community forestry resulting in increased innovation and investment;
- Bringing integrated interdisciplinary and innovative approaches to advance community forestry, and analysis of production, consumption and trade of community forest products;
- Provide technical assistance and guidelines for community-based forest management, forest-based enterprises that improve livelihoods and reduce poverty;
- Introduce bee keeping enterprises providing high profit margin for community level beekeepers to reduce pressure on other forest resources while creating economic incentives and benefits for the entire communities;
- Working through strong partnerships and alliances in community forestry and where joint action is needed.

- Promote ecotourism in community forestry

Table 10: Community Forestry programme coverage – 2019 to 2028

Intervention	Activities	Output	Time frame
Goal: Enhanced ecosystem goods and services – for commercial and adaptation benefits			
Objective: To increase the welfare of local communities through the introduction of ecologically adapted natural resource management practices			
Expanding with additional Community Forestry (CFs)	Regional appraisal for Community Forestry and implementation of CF preparatory phase	25 CFs accomplished (WCR – 5 CFs; LRR – 3; NBR – 2 CRR (S) – 4; CRR (N) – 3; URR (S) – 4 & URR (N) – 4 CFs)	By 2028
	Implementation of CF preliminary phase		
	Implementation of CF consolidation phase		
Community Protected Forest Areas (CPAs)	Regional appraisal for securing and expanding state controlled community protected forests	9 CPAs accomplished (WCR – 2; LRR – 1; NBR – 1; CRR (S) – 2; URR (S) – 1 & URR (N) – 2 CPAs)	By 2023
MA & D	Capacity devt (community training)- MA & D	All CF sites covered nationally	By 2021
	Phase 1: Assessing existing situation	Situational analysis & surveys for enterprise ideas conducted in 30 community forestry sites	By 2024
	Phase 2: Carrying out surveys in order to select products and identify enterprise ideas		
	Phase 3: Preparing enterprise devt plans	30 business plans developed	By 2025
	Phase 4: Supporting the start-up of enterprises	30 enterprises supported	By 2028
Alternative Livelihoods	Conduct needs assessments & Market surveys on small & medium forest product enterprises	Needs assessment & market surveys conducted for 30 CFs	By 2024
	CBO capacity building on micro-finance mgt	30 CBOs trained	By 2025
	Setting-up Micro-finance initiatives (MFIs) for household livelihood initiatives	MFIs set-up with CF sites	By 2026
	Supporting household livelihood initiatives	Livelihood initiatives in 30 CF sites supported	By 2028
Community-based Ecotourism	Conduct needs assessments & Market surveys on ecotourism	Market surveys on ecotourism conducted in all CF sites	By 2022
	CBO capacity building on ecotourism	CBO training conducted in 5 potential ecotourism sites	By 2024
	Developing infrastructure for ecotourism	5 ecotourism sites established	By 2026

4.2.4 Nursery and Plantation Development

i) Introduction

The Gambian forest is vulnerable to impacts of climate change, visibly degraded and biodiversity is being lost at an alarming rate. Anthropogenic factors such as population increase and unsustainable agricultural practices are among factors affecting the Gambian environment and natural resources. Growth-oriented development and competition in trade (e.g. re-export of timber to China) and other investments have materially contributed to the exploitation of our natural resources beyond the capacity of the ecosystem. At the same time, management capacity and policy tools such as the forest inventory, regulations, law enforcement, and economic instruments have not been utilized efficiently. This has led to the depletion of the natural resources and deterioration of the environment, thereby affecting the overall balance of the ecosystem (NBSAP 2015) to the extent that the quasi totality of timber that was re-exported to China were not of national origin. Also, proliferation of Estate Agencies progressively taking their shares of the remaining potential forest land in the West Coast Region. Therefore, there is an urgent need to maintain and enhance forest resilience and adaptive capacity through some investments in forest plantation management and promoting public, private and community nursery establishment. Plantations and sustainable forest management can mitigate effects of climate change if the role of forests as sinks in the carbon cycle is maintained or improved, and

by providing bio-materials that can act as temporary carbon stores or as ‘carbon substitutes’, replacing carbon-intensive materials and fuels.

ii) Programmatic approach:

DoF will promote an integrated approach to sustainable forest management by involving all relevant stakeholders in the development of our forest programme. The department is committed on addressing deforestation to reduce CO₂ emissions in order to combat climate change and its impact on our dryland forest. DoF is interested, and would want to participate in programmes on Reducing Emissions from Deforestation and Degradation (REDD+). DoF shall design and implement programmes to slow-down desertification, halt and reverse land degradation and reduce biodiversity loss in the country.

iii) Promoting nursery development

DoF shall continue to promote public, private and community nursery establishment. Tree nurseries are a key success factor in many forestry and agriculture development interventions. The purpose of our nursery production shall be in manifold: a) commercial biomass production, b) land rehabilitation and forest conservation, and c) local capacity building and livelihood enhancement. DoF shall encourage nursery production on timber species of multiple purpose tree species (MPTS), ornamental species (flowers and grass) and fruits and nuts (citrus, mangoes and cashew nuts). DoF established many such nurseries to support local foresters and orchard plantations.

iv) State Plantations

DoF will encourage the establishment of representative natural forest and, where possible, the restoration of natural forests on appropriate sites. DoF shall develop management systems that will favour natural processes and preferably plant native species that enhance the productivity and resilience of the forest. The department will manage planted forests in ways that benefit biodiversity, both within the planted forest itself and in areas of natural forest that are retained within the planted forest landscape (e.g. establish planted forests on degraded sites and retain areas of high biodiversity value protected).

DoF will negotiate and engage forest communities and private forest owners on forest landscape restoration (FLR) activities by planting native species and creating corridors on degraded land to increase habitat and allow species to move between fragmented natural forest patches. FLR will involve participation of key stakeholders in forest management: local farmers, forest communities, related government sectors, private forest owners. FLR will be encouraged on areas protected for watershed management and nature conservation, tree buffers along River Gambia and tributaries to protect against flooding and erosion among others.

Resources within gazetted forest parks will be conserved while allowing forest communities to sustainably and profitably use the peripheral natural habitats through innovative management approaches such as community forest, collaborative forest management, Joint Forest Park Management and development of ecotourism.

v) Partnership in forest plantation management

The department will further share experience with partners/colleagues in Senegal and other neighbouring countries, encouraging provision of mutual support in the development of cross-border forest programmes, and share our experience of implementing such programmes. DoF shall engage the private sector in planting new forests and rehabilitating degraded forests by using the social, cultural, environmental and economic considerations in our partnership.

The main thrust of our partnership is to contribute towards economic growth, through the forest resources that is sustainably managed and used as sources and enablers of growth. Our partnership with the Private Sector and civil society shall be demonstrated by provision of appropriate institutional support and services, as well as providing conducive environments in which to operate.

vi) Joint forest – park management (JFPM)

The Joint Forest - Park Management (JFPM) approach has been tested in selected forest parks since 1999, and finally conceptualized at the beginning of 2003. The JFPM agreement grants the management partner long-term user rights within specified forest resources. It contains the general co-management terms and conditions, and describe management goals / objectives and major strategies to achieve them, in particular - fire management and control, resource utilization including grazing, etc. As soon as both sides have agreed on the basic management issues, they sign the JFPM agreement and start developing the 10-year co-management plan. This plan and probably associated agreements (e.g. training events, by-laws, setting up of a development fund, assistance to enterprise development etc.) empowers the stakeholders to carry out forest management activities and to start product commercialization. The JFPM agreement can be valid for an indefinite period of time but subject to joint evaluation in 5-year intervals of such agreement (ie 5-year intervals of individual agreement)

Since 1999, 27 JFPM agreements have been concluded between the Forestry Department and co-management partners covering a forest park area of some 17,300 ha or 53% of the existing forest park area. At present, these management partners represent more than 240 communities most of them situated in the Central River Region (CRR). The implementation of most management plans has just started. Only few committees are engaged in commercial forest utilization so far, but some of them are realizing considerable income through production and sale of timber and Rhun palms. DoF is determine to continue its resource investment in JFPM initiatives to promote stakeholder participation forest resource management.

Summary of programme activities – 2019 to 2028

- Providing long-term perspectives and leadership in monitoring and assessing trends in forest resources and services, and the production, consumption and trade of forest products.
- Establish a forest management plan, which balance and trade off different restoration functions and solicit the involvement and support of multiple stakeholders with cultural as well as biological drivers.
- Implement forest management plan in which biodiversity conservation is prioritise. Actual, potential and emerging threats to biodiversity must be identified and addressed.
- Manage planted forests in ways that benefit biodiversity, both within the planted forest itself and in areas of natural forest that are retained within the planted forest landscape
- Establish planted forests on degraded sites and retain areas of high biodiversity value protected.
- Promote private forest plantation areas by a) distributing seedling, and open-up new areas for renewable energy, and b) promoting inter-planting economic trees in bare agricultural lands.
- Locate production forests at a landscape scale and plan harvesting blocks in ways that do not disrupt the continuity of mature forests.
- Protect populations of, and maintain genetic diversity of valuable timber species and populations of seed trees.
- Through the recently launched EbA and the SLM project, encourage individual farmer forest plantation with supporting subsidies.
- Build strong private sector enabling environment through the liberalization of private sector investment regulations and removal of other restrictions in establishing private forest plantation.

- Improve ecological knowledge and ensures forest functions such as pollination, seed dispersal and nutrient cycling are catered for. Areas of forest and other habitats that provide important ecological functions should be identified and protected.
- Promote protection of plantations (national forests), restoration of disturbed watershed areas and re-forestation of disturbed forests;

Table 11: Nursery and Plantation programme coverage – 2019 to 2028

Intervention	Activities	Output	Time frame
Goal: Full involvement of public, private and community in nursery and plantation management			
Objective: to maintain and enhance forest resilience and adaptive capacity through some investments in forest plantation management and promoting public, private and community nursery establishment.			
Nursery Development	Establishing village tree nurseries	30 village nurseries established (5 nurseries per region) 12 private nurseries established (2 nurseries per region) 6 state nurseries established	By 2021
	Establishing private tree nurseries		By 2023
	Establishing state (DoF) tree nurseries		By 2020
State Plantations	Situational analysis and negotiations	6 additional state plantations established	By 2025
	Surveys and devt of infrastructure		
	Sustainable management of forest resources		
Private Forestry	Situational analysis and negotiations	12 additional private forests established (2 private forests per region)	By 2026
	Surveys and development of infrastructure		
	Sustainable management of forest resources		
	MA & D, and utilisation of forest products	Improved marketing of forest products and services	By 2027
Joint Forest – Park Management (JFPM)	Situational analysis and negotiations	6 additional Joint Forest – Parks established	By 2024
	Surveys and development of infrastructure		
	MA & D, and utilisation of forest products	Improved marketing of forest products and services	By 2025

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Annexes

Annex 1: Review of NFAP (2001 – 2010) Programme Performance to-date

NATIONAL FOREST STRATEGY: ISSUES PROCLAMATION		
Issue No.	Issues for implementation	Status (achievements as to date)
Issue 1: Ensure development of policy Implementation Tools		
1.1	Report on the state and trend of Gambian forests	Report on Gambian forests regularly submitted to FAO Global Forest Resources Assessment process.
1.2	Ensure better understanding of the policy	Popularization of Forest policy undertaken within the context of Gambian NFAP
1.3	Ensure government commitment in policy implementation	Forestry issues fully incorporated in Government strategic development programmes
Issue 2: Identify and classify forestland		
2.1	Conduct periodic National Forest Inventory in 2008	A comprehensive National Forest Inventory was conducted in 2008-2010
2.2	Map out and classify forestland	The 2010 National Forest Inventory included a wall to wall coverage and classification of the Forestland
2.3	Identify most promising sites for 75% forestland	25 % of promising forestland sites were identified
Issue 3: Develop Community Forestry Management		
3.1	Ensure the application of forest legislation that permits Community Forestry	The full engagement of communities in forest management well encapsulated in the 1998 Forest Act
3.2	Support the creation of a legal body to represent the CF villages at Government Level and to improve communication	The Core Group was created to handle designation of forest lands to community ownership and management
3.3	Carry out periodic refinement of CF concept to minimize governmental intervention	Community Forestry fully developed to earn the Gambian Forest Policy a Silver award
3.4	Support Communities to Set up the Management Structures for their Community Forests	More than 400 Forest Management Structures are in place
3.5	Organize annual market surveys of forest products to advise CF Villages on Marketing of Products	Several market surveys on NTFP were conducted covering 20 percent of CF villages
3.6	Convince Locals, through Extension, on the Possible Environmental Degradation in the Absence of Community Forestry	Extension network in place were able to popularize community forestry
3.7	Promote Community Forestry Agreements	About 200 Agreements Concluded
Issue 4: Ensure Active Participation of the Public in Community Forestry Management		
4.1	Manage at least 25 000 ha of Selected Forest Parks	25 percent achievements
4.2	Manage Other State Forests	10 percent achievements
4.3	Gazette New Forest Parks	NIL: Non release of land to convert to forest parks and inadequate funding to undertake the process
Issue 5: Ensure the Implementation of the Principles for Forest Management Planning for State, Community and Private Forests		
5.1	Periodic Review of the Gambian Forest Management Concept	No reviews due to lack of funds. New one should incorporate EIA and management of bushfires
5.2	Continue to Collect and Compile Forest Management Data	Regular data collection by M and E unit in collaboration with Participatory Management Unit
5.3	Develop Principles from Tested Silvicultural Models and from other Forestry Principles	JPFM and CF management models well tested and successful
5.4	Further Develop Guidelines for Sustainable Forest Management	CF Guidelines in place
Issue 6: Improve Strategies for Prevention and Control of Bushfires		
6.1	Encourage Government Departments and NGOs to be actively Involved in Prevention and Control of Bushfire	Villagers enlightened through the extension system with continuous sensitisation
6.2	Use Political Influence for Prevention and Control of Bushfires	The influence of LG authorities including law enforcement agents were enlisted. There is also cross border collaboration with Senegalese LG Authorities.
6.3	Improve Application of Forest Legislation	Strict enforcement of 1998 Act

Issue 7: Ensure Sustainable Supply of Forest Produce for Urban and Rural Populations		
7.1	Promote Multiple-Use of Forestland	NTFPs, Ecotourism, Animal grazing etc
7.2	Ensure Adequate Control System of Forest Exploitation Activities	Selective cutting undertaken in the natural forests
7.3	Promote more Efficient Energy Saving Devices and Alternatives to Fuelwood	Little done
7.4	Encourage private plantation establishment	Few farmers involved in private plantation
7.5	Reduction of import tax on forest products that cannot be sustainably produced in country	Very much in place but leading to influx of Pterocarpus and Charcoal from Senegal
Issue 8: Ensure licenses, permits, royalties and stumps fees reflect replacement cost of forest produce		
This issue and the strategic actions were not moved, but occasional review of forest tariff done		
Issue 9: Ensure Co-ordination of all Forestry Activities at all Levels throughout the Forestry Department		
9.1	Set Principle Guidelines for Appropriate Coordination at all Levels	CF Guidelines, JFPM, Bushfires Concept/Guidelines
9.2	Ensure Proper Streamlining of Forest Activities through the Forestry Department	Well-articulated
9.3	Develop and establish a reporting system within DoFon activities in forest lands and ensure follow-up	Little done on this
Issue 10: Contribute to the co-ordination and harmonization of forestry and related sectors		
10.1	Promote Forestry View through Meetings/Workshop on Natural Resources	Achieved through informal meetings and workshops
10.2	Familiarize DoF staff with natural resource policies and management strategies	Achieved through Technical Advisory Committees(TACs) and other bodies
10.3	Ensure that Forest Policy and Concept docs are distributed for general information	Policy and concept popularized through Newsletters (Out of The Forest), and meetings
Issue 11: Support Applied Forestry Research to Acquire Baseline Data		
This issue and the strategic actions were not moved		
Issue 12: Support Tree Planting in the Urban Areas		
This issue and the strategic actions were not moved		
Issue 13: Promote Extension for the Development of the Forestry Sector		
13.1	Promote General Extension of Forestry Sector	Very vibrant with forest camps in every Region
13.2	Increase Community Forestry Sensitization Campaign	Done regularly
13.3	Conduct Extension Campaign on Bushfire Issues	Done regularly
13.4	Promote Public Participation	Achieved through CF process
13.6	Encourage Formation of Environmental Societies	Several school clubs were formed
Issue 14: Institutionalize in-Country Training for Forestry Staff, Villagers and NGOs		
14.1	Plan Forestry Department Staff Requirement and Training for Community Forestry Expansion	Done regularly
14.2	Highlight the Training Need of Forestry Department at Round Table Conference with Government and Donors	Done through on-going internationally funded projects
14.3	Forestry Projects to Increase Training Allocations	Little allocation to training in regular annual budgets
14.4	Expand in-Service Forestry Training including Forest Committees	Comatose
Issue 15: Improve Forestry Department's Physical Infrastructures and Equipment		
15.1	Recruit more Trainable Staff	Regular recruitment done
15.3	Increase Staff Motivation	Regular promotion though limited vacant positions
15.4	Raise Staff Participation through Improved Planning and Monitoring	Done regularly through participatory planning
15.5	Build new Headquarters and Forest Stations	New stations in regions. Plans on to build a new headquarters
15.6	Provide Adequate Office and Technical Facilities	To some extent
Issue 16: Provide Adequate Funding for the Forestry Department		
16.1	Manage the National Forestry Fund (NFF)	Fund accessible as stipulated in the Forest Act. However, difficulties always encountered with the Ministry of Finance holding back the funds
16.3	Better Supervision of Revenue-generating Forestry	50 percent anticipated payment to NFF not forthcoming

	Activities to Increase Revenues	
16.4	Improve Management Techniques for Forest Parks to Create Income	JFPM with well-developed management plans