

UNITED REPUBLIC OF TANZANIA



**MINISTRY OF NATURAL RESOURCES AND TOURISM
FORESTRY AND BEEKEEPING DIVISION**

**NATIONAL FOREST PROGRAMME IN TANZANIA
2001 - 2010**

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PREFACE

Tanzania is endowed with large and valuable forest resources. Recent studies indicate that forest-based income accounts for a large share of rural income in the country. Forest related goods and services have a significant potential for the economic development of the country.

At the same time, Tanzania is facing serious environmental degradation problems. Among the most important ones are deforestation and forest degradation. For a long time, the Government of Tanzania has attempted to curb the problem of deforestation by promoting village and community forestry aimed at producing sufficient amount of forest products and services to meet both local demands and promote the forests contribution to global environmental conservation. Despite these efforts, environmental degradation continues at a fast rate. This is partly due to unsustainable land-uses such as shifting agriculture, but more so because of the relationship between environmental degradation and poverty in attempts to satisfy basic needs. The consequences have been loss of biodiversity and general decline of forest products and services such as fuelwood, and water catchment values.

The Government of Tanzania has realised that a more comprehensive approach was needed to ensure sustainable forest management in the country. Also recognizing the broad and cross-sectoral linkages between the forestry and other sectors, the National Forest Programme (NFP) has thus been prepared taking into consideration macro-economic and social policy developments related to land-based resources such as land, environment, water, energy and agriculture. The NFP is an instrument for implementing the National Forest Policy approved in 1998 towards sustainable management of her forest resources.

The NFP has been prepared through broad based consultations at local and national levels with key stakeholders of related sectors and institutions as well as development partners. The Tanzania Government acknowledges the contribution of each and every one in this commendable initiative. We are grateful to all local and international specialists who put extra input during the preparation of the Programme. We appeal for continued gender balanced participation and support during the implementation.

It should be stressed that the success of the implementation of this Programme depends on active participation of all stakeholders both local and the international community. The active participation, cooperation and follow up by our development partners in the preparation phase gives us confidence on the interest and willingness to support its implementation.

The issues, options and strategies related to beekeeping development are addressed in a separate document although consultations for the preparation of the National Beekeeping Programme were undertaken concurrently during the NFP formulation process.

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The Director of Forestry and Beekeeping, the National NFP Coordinator and, NFP Coordinating Unit Task Force members played a key role in the NFP formulation. The experts from the Tanzania Forest Conservation and Management Project, Sokoine University of Agriculture, Tanzania Forest Research Institute and the private sector made valuable contributions to ensure that the National Forest Programme (NFP) formulation process was realized. The NFP Steering Committee and the Forestry Advisory Group were instrumental and provided guidance throughout the process.

The NFP formulation process received technical backstopping from Indufor Oy. The Government of Finland and the Government of Tanzania provided financial support for developing the NFP.

ABBREVIATIONS AND ACRONYMS

BET	Board of External Trade
C&I	Criteria and Indicators
CBD	Convention on Biological Diversity
CBFM	Community Based Forest Management
CBO	Community Based Organization
CCD	UN Convention on Combating Desertification and Drought
CEEST	Center for Energy, Environment, Science and Technology
CSD	Civil Service Department
CSRP	Civil Service reform Programme
CU	Coordinating Unit
DC	District Council
EAC	East African Community
EIA	Environmental Impact Assessment
ERP	Economic Recovery Programme
ESAP	Economic and Social Action Programme
FAG	Forestry Advisory Group
FBD	Forestry and Beekeeping Division
GDP	Gross Domestic Product
GEF	Global Environmental Facility
HIPC	Highly Indebted Poor Countries
IK	Indigenous Knowledge
IPF	Intergovernmental Panel on Forests
IUCN	The International Union for the Conservation of Union
JFM	Joint Forest Management
LGA	Local Governments Authority
LGRP	Local Government Reform Programme
LGRT	Local Government Reform Team
LMDA	Logging and Miscellaneous Deposit Account
LUP	Land Use Planning
MCDWCA	Ministry of Community Development, Women and Children Affairs
MEM	Ministry of Energy and Minerals
MIS	Management Information System
MNRT	Ministry of National Resources and Tourism
MoAF	Ministry of Agriculture and Food Security
PO-RALG	President's Office Regional Administration and Local Government
MTEF	Medium Term Expenditure Framework
NAFORM	National Forestry Research Master Plan
NBSAP	National Biodiversity Strategy and Action Plan
NCSSD	National Conservation Strategy for Sustainable Development
NEAP	National Environment Action Plan
NEMC	National Environmental Management Council
NFP	National Forest Programme
NGOs	Non- governmental organizations
NLUPC	National Land Use Planning Commission
NPES	National Poverty Eradication Strategy

NWFP	Non-wood Forest Products
PRS	Poverty reduction Strategy
PSRP	Public Service Reform Programme
RAS	Regional Administrative Secretariats
RPFB	Rolling Plan and Forward Budget
SADC	Southern Africa Development Community
SAP	Structural Adjustment Programme
SC	Steering Committee
SFM	Sustainable Forest Management
SPM	Southern Paper Mills Ltd
SUA	Sokoine University of Agriculture
SWAp	Sector Wide Approaches
TAFORI	Tanzania Forestry Research Institute
TANESCO	Tanzania Electric Supply Company
TFAP	Tanzania Forestry Action Plan
TWICO	Tanzania Wood Industry Corporation
UNCED	UN Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests

EXECUTIVE SUMMARY

National Context

About 38% of the Tanzania's 886,000 km² total land area is covered by forests and woodlands that provide for wildlife habitat, unique natural ecosystems and biological diversity and water catchments amounting to 1.6 million hectares. These forests are however faced with deforestation at a rate of between 130,000 and 500,000 ha per annum, which results from heavy pressure from agricultural expansion, livestock grazing, wild fires, over-exploitation and unsustainable utilization of wood resources and other human activities mainly in the general lands.

Policies

The NFP is an instrument meant to implement the National Forest Policy, which was approved by the Government in 1998. The policy takes cognisance of macro-economic and other sectoral policies ranging from environmental conservation to sustainable development of the land based natural resources. Major policies that have a bearing on the forest sector include the Environmental Policy and Land Policy. The formulation of respective legislation and their operationalization will enhance sustainable forest management mainly in the general lands and cross-sectoral areas.

Justification

The National Forest Programme was developed in order to address the challenging responsibilities in the near future and to increase the forest sector's contribution to the national economy and more so in poverty reduction. Forests and trees play multiple roles in the rural life of majority of Tanzanian people especially women and marginal groups in relation to food security, rural energy supply and household subsistence. Forests are increasingly becoming important in the local and global environmental and biodiversity conservation. This programme would significantly enhance not only sustainable forest management (SFM) but also improve the design and implementation of projects and programmes which have so far been fragmented and uncoordinated.

Objectives

Recognizing the ever increasing environmental degradation and loss of forest resources, Tanzania embarked on developing a long-term National Forest Programme to implement the National Forest Policy. The objectives of the NFP development programmes are (i) sustainable supply of forest products and services ensured to meet the needs at the local and national levels; (ii) enhanced national capacity to manage and develop the forest sector in a collaborative manner; (iii) enabling legal and regulatory framework for the sector in place and (iv) increased economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade of forest products.

Development Programmes

The National Forest Programme (NFP) for 2001-2010 is based on four implementation programmes that cover both forest resources management as well as institutional and human resources development aspects. The programmes are: (i) Forest Resources Conservation and Management programme which aims at promoting gender balanced stakeholders participation in the management of natural and plantation forests, giving priority to ecosystems conservation, catchment areas and sustainable utilization of forest resources; (ii) Institutions and Human Resources Development programme which aims at strengthening institutional set up, coordination of forest management, establishing sustainable forest sector funding and improvement in research, extension services and capacity building through strengthening human resources; (iii) Legal and Regulatory Framework programme which focuses on the development of regulatory issues including the Forest Act, rules, regulations and guidelines to facilitate operations of the private sector and participatory management, and (iv) Forestry Based Industries and Sustainable Livelihoods programme which is intended to enhance forest industry development by promoting private sector investment, improving productivity and efficiency and to tap the income generation opportunities provided by non wood forest products. The complete Logical Framework Matrices for the respective programmes are presented in Annex 7 to this main document.

(1) Forest Resources Conservation and Management Programme

The programme covers Forest Reserves, General Lands, Industrial Plantations, Private and Community Forestry and Forest Biodiversity Conservation, Watershed Management and Soil Conservation

Objective: Sustainable supply of forest products and services ensured to meet the needs at the local and national levels

Sub-programme	Key Issues¹	Key Strategies
1.1 Participatory Forest Resources Management and Gender Aspects^{2*}	<ul style="list-style-type: none"> • Ineffective forest management due to the lack of involvement, motivation and benefits to local communities, private sector and other stakeholders. (H) • Inadequate gender aspect in forestland management. (H) 	<ul style="list-style-type: none"> • Establish CBFM and JFM by using innovative ways to share the costs and benefits and by assessing the economic, financial and social viability of participatory initiatives. Pay attention to gender balance in terms of income generation opportunities, poverty reduction, decision-making and ownership of forest resources and products. • Collaborate with local governments in the management of forests in the general lands and local government forest reserves. • Involve specialized executive agencies, private sector and local governments by commercialization or privatization of the management of existing industrial

¹ H = High priority M = Medium priority

L = Low priority

² * = Priority Sub-programmes

Sub-programme	Key Issues ¹	Key Strategies
		plantations through concessions and leases. <ul style="list-style-type: none"> • Expand existing plantations and promote tree planting in private farmlands.
1.2 Forest Biodiversity Conservation and Management*	<ul style="list-style-type: none"> • Degradation and erosion of biodiversity due to shifting cultivation overgrazing, monoculture, wildfires and poaching. (H) • Inadequate application of indigenous knowledge in biodiversity conservation. (M) 	<ul style="list-style-type: none"> • Assess forest biodiversity sites and habitats with high endemism and species richness under major ecozones and create conservation strategies and joint management agreements • Demarcate and manage protective buffer zones around gazetted forest and nature reserves with biodiversity, water and other amenity values in collaboration with local communities through JFM and CBFM
1.3 Land Use Planning	<ul style="list-style-type: none"> • Undefined land use and security of tenure of forestlands in village and general land. (H) • Land scarcity due to population pressure and its negative effects on forest development (L). 	<ul style="list-style-type: none"> • Develop clear ownership for all forests and trees on general lands. • Demarcate forest reserves under central, local government, village and private individuals and grant appropriate user rights.
1.4 Forest Resources Information and Management Planning	<ul style="list-style-type: none"> • Inadequate data on available forest resources for utilisation, and baseline data for conservation and management purposes. (H) • Management plans non-existent or outdated or not implemented. (H) • Inadequate information on ecosystems (forest biodiversity, water catchment and soil conservation). (H) • Outdated and non-existent management plans in watershed and soil conservation areas. (H) • Inadequate collection, analysis interpretation, dissemination, storage and updating of forest resource information. (H) 	<ul style="list-style-type: none"> • Streamline forest resources information systems by assessing the current databases/registries and priority needs for new forest resource information. • Conduct forest inventories and develop management plans together with the relevant stakeholders in priority plantations and natural forest areas. • Establish new, cost-effective ways to conduct and prepare forest reconnaissance inventories, biological surveys and zonation and prepare low cost management plans.
1.5 Forest Resources Utilisation	<ul style="list-style-type: none"> • Inefficient utilisation of plantations. (H) • Potential for forest products, NWFPs and services (including eco-tourism, woodfuel) not fully assessed/utilised. (M) • Heavy dependency on few species for raw material supply for forest-based industry. (L) 	<ul style="list-style-type: none"> • Commercialise or privatise the management of existing plantations through concessions, leases and joint management and use fully the plantation potential in terms of quantity and quality. • Assess and promote utilization of forest products, NWFPs and services for wider use and income-generation, especially among the rural communities. • Assess and create awareness on lesser-known species for wider utilization.

(2) Institutions and Human Resources Programme

Objective: enhanced national capacity to manage and develop the forest sector in a collaborative manner

Sub-programme	Key Issues	Key Strategies
2.1 Strengthening Institutional Set-up and Sectoral Co-ordination and Cooperation*	<ul style="list-style-type: none"> • Inadequate sectoral and inter-sectoral co-ordination (H). • Inadequate, regional and international co-operation (H). • Inadequate mechanism for coordination of stakeholders in management of forest in general lands (M). • Weak institutional linkages between the central and local levels, NGOs, local communities and the private sector on conservation and management of forest ecosystems (H). 	<ul style="list-style-type: none"> • Promote cross-sectoral coordination between the forest administration and other government institutions at all levels through formal mechanisms (at the central and local levels, and areas envisaged for collaboration include integrated planning, policy formulation and extension services). • Develop mechanisms for adequate sectoral and inter- sectoral co-ordination and consult other stakeholders in planning and management of forest resources as well as regional and international co-operation in implementation of SFM. • Explore and utilize fully opportunities provided under various conventions, agreements and mechanisms, at international cooperation level.
2.2 Human Resources Capacity Building*	<ul style="list-style-type: none"> • Inadequate human resources to carry out forestry programmes (H). • Inadequate working conditions for civil servants (H). • Declining number of male and female forest staff due to HIV/AIDS (H). 	<ul style="list-style-type: none"> • Collaborate with the local governments and President's Office - Regional Administration and Local Government, to develop sufficient capacity of the local governments to administer and manage forest resources by building professional, technical and specialized competence. • Sensitise male and female forest staff on AIDS/HIV in collaboration with other stakeholders.
2.3 Forest Financing*	<ul style="list-style-type: none"> • Inadequate financing in research and training institutions (H). • Inadequate investment in forestry sector (H). • Poor administration and management of revenue collection from forest resources (H). • Lack of mechanisms for investments in forest conservation and sustainable management (H). • Financial constraints in development of forest-based industry and products (M). 	<ul style="list-style-type: none"> • Develop new and innovative sectoral financing mechanisms in the forest sector involving the key stakeholders. • Enhance self-financing mechanisms through broadening of the revenue base for all products and services, full valuation of the resource use and improvement of revenue collection by product pricing. • Harmonise collection of royalties and other fees with local governments or through other feasible mechanisms to make the collection efficient. • Promote private sector and local community investments in forestry activities.

Sub-programme	Key Issues	Key Strategies
2.4 Strengthening Extension Services and Awareness Creation in Forest Management*	<ul style="list-style-type: none"> • Inadequate extension services to all stakeholders for SFM (H). • Poor gender awareness and women involvement in forest programmes (H). • Inadequate use/suppression of indigenous knowledge on management and uses of forest resources on village and general lands (M). • Inadequate knowledge of national forest policy (public education) (H). • Limited political support to forestry (H). 	<ul style="list-style-type: none"> • Develop cost effective forest extension systems jointly by the central government, local government, private sector, NGOs and CBOs. • Promote gender awareness and women involvement in forest programmes. • Promote indigenous knowledge on management and uses of forest resources at local level. • Promote political support by creating awareness for politicians and decision-makers.
2.5 Forestry Research*	<ul style="list-style-type: none"> • Inadequate nation wide research coverage in the forest sector (H). • Inadequate knowledge and research base in forestland management, including indigenous knowledge (H). 	<ul style="list-style-type: none"> • Integrate National Forestry Research Master Plan into the NFP based on the identified information gaps that require research. • Undertake research on priority areas and disseminate research findings and promote their application. • Undertake research through partnerships with other institutions.
2.6 Policy Analysis, Planning and Monitoring	<ul style="list-style-type: none"> • Lack of periodic/systematic review of forest policy (L). • Lack of systematic/periodic review of forest laws and regulations (H). • Inadequate consultation of stakeholders in planning and management of forest resources (H). 	<ul style="list-style-type: none"> • Develop sectoral competence for formulation and revision of forestry legislation. • Develop facilitative management guidelines and by-laws for different forest types at all levels. • Set and refine national Criteria and Indicators for Sustainable Forest Management.
2.7 Forest Resources Valuation	<ul style="list-style-type: none"> • Poor understanding on the value of forest eco-system products and services (M). • Lack of valuation of forest ecosystem in terms of tangible & intangible values (M). 	<ul style="list-style-type: none"> • Conduct special studies for valuation of both tangible and intangible forest products and services and incorporate biodiversity and other values into the national accounting system

(3) Legal and Regulatory Framework Programme

Objective: enabling legal and regulatory framework for the sector in place

Sub-programme	Key Issues	Key Strategies
3.1 Development of Laws and Regulations*	<ul style="list-style-type: none"> • Inadequate legal framework for private sector/ gender balanced community participation in management of forestland (H). • Lack of motivation for the 	<ul style="list-style-type: none"> • Prepare regulations and guidelines that support sustainable management and prepare joint management agreements between the central government, specialized executive agencies, private sector or local governments, as appropriate in each case.

Sub-programme	Key Issues	Key Strategies
	<p>local communities and private sector in forest management (H).</p> <ul style="list-style-type: none"> • Lack of guidelines for collaborative forest management (H). • Inadequate legal mechanisms for harvesting, royalties, benefit sharing and on tariffs in wood-based products, NWFPs and services (H). • Formal mechanisms for sharing responsibilities and benefits are non-existent. (H). • Outdated forest legislation to protect biodiversity and nature reserves conservation (H). • Lack of legal guidelines and regulations for bio-prospecting activities in forestry sector (H). 	<ul style="list-style-type: none"> • Promote formation of local groups or other organizations of people living adjacent to the forest to participate in cost and benefit sharing. • Grant to the local communities appropriate user rights for forest produce and management of forests in accordance with approved management plans. • Establish executive agency (ies). • Put under effective legal protection sufficient areas of valuable key forest ecosystems and habitats with endemic species and update them to nature reserves. • Develop regulations for bio-prospecting in partnership with relevant stakeholders.
3.2 Harmonisation of Regulations*	<ul style="list-style-type: none"> • Inefficient and time-wise expensive procedures for establishing concessions, leases and other types of forest utilisation/management contracts (H). • Multiplicity and uncoordinated charges on forest products (royalties and fees) (H). • Unharmonized forest and trade legislation for wood and non-wood forest products (L). 	<ul style="list-style-type: none"> • Carry out with all relevant stakeholders rationalization of charges on forest products (royalties) in order to guarantee the competitiveness of forest products in local and international market in relation to competing products. • Streamline procedures for administration of forest products and trade to reduce red tape.
3.3 Development of Sector-specific Environmental Impact Assessment Guidelines*	<ul style="list-style-type: none"> • Lack of environmental impact assessment guidelines in forestland management (H). • Inadequate consideration of environmental concern in wood and non-wood based industry and services (M). 	<ul style="list-style-type: none"> • Monitor all forest major forest investments and development activities to ensure adherence to EIA guidelines.

(4) Forestry Based Industries and Sustainable Livelihoods Programme

Objective: increased economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade of forest products.

Wood-based Industry and Products, Woodfuel, Artisanal Wood-based Industry and Products, Eco-Tourism, Other Non-wood-based Industry and Products, and Trade in Forest Products

Sub-programme	Key Issues	Key Strategies
4.1 Forestry Products and Services Information Development*	<ul style="list-style-type: none"> • Inadequate information on markets and marketing of forest products and services (M). • Inadequate information on non-marketed forest products and services (M). • Inadequate information on raw materials for mechanical and chemical wood-based industries and non-wood products. (H). 	<ul style="list-style-type: none"> • Establish databases and marketing information for mechanical and chemical industries, artisanal products, NWFPs, woodfuel and charcoal markets. • Conduct baseline surveys on market information on NWFP, forest products and services. • Disseminate market information to producers, users and other relevant stakeholders.
4.2 Products and Markets Promotion and Awareness Creation*	<ul style="list-style-type: none"> • Inadequate promotion and awareness creation on lesser-used tree species and NWFPs and services (M). • Limited knowledge on market information by producers at all levels (L) 	<ul style="list-style-type: none"> • Create awareness on the demand and supply, markets, marketing and income-generation potential of forest products, NWFPs and services and lesser-known species. • Create linkages between producers and consumers for systematic market information. • Establish forest certification system.
4.3 Forestry Industries Technology Development	<ul style="list-style-type: none"> • Inadequate innovation and affordable alternative sources of energy (L). • Inadequate or lack of appropriate technology to process (packaging quality, quantity, high value added) and use wood, NWFPs and artisanal products (L). 	<ul style="list-style-type: none"> • Develop alternative affordable sources of energy in collaboration with relevant gender balanced stakeholders. • Create quality standards for various products and facilitation of adoption of appropriate technologies in harvesting and processing.
4.4 Infrastructure Development	<ul style="list-style-type: none"> • Poor infrastructure in facilitating forest-based industry (M). 	<ul style="list-style-type: none"> • Improve infrastructure, mostly roads and information and communication technology, in forest plantations and natural forests.

Way Forward

In the first year of the NFP, the document will be disseminated and publicised to all relevant stakeholders for action at national level. This is important taking into account the necessary coordination of development partners, local and international agencies supporting the implementation of the programme and in facilitating the move towards a programme approach in NFP implementation.

The Programme will have to receive the necessary support in the local governments. This will entail conducting meetings with key decision-makers at local level to disseminate NFP information and promote start-up of district NFP planning and implementation.

Monitoring system for implementing the NFP will be set up in terms of assessment/refinement of existing Criteria and Indicators for SFM, and refinement of

NFP indicators based on national C&I. This will involve also training of FBD and some district staff on the application of the system.

Developing activities towards a programme approach by assessing and designing programme framework, instruments and milestones at national and district levels. In this respect, NFP Coordinating Unit will be facilitating and following up capacity building in the districts through technical support.

Input Requirements

The NFP implementation is expected to draw resources from various sources under different stakeholders including the private sector, public sector and external assistance. Growing involvement of the private sector, NGOs and individuals is expected to reduce dependency on donors and increase local sources and government share. The government has approved the Ministry of Natural Resources and Tourism to retain 70% of the revenue collected for forest management purposes. For the forest plantations, the Forest Division has been allowed to retain about 45% of the forest royalties under the Logging and Miscellaneous Deposit Account (LMDA) to service silvicultural and road maintenance activities in the plantations. These are significant steps towards sustainable forest financing.

Financing NFP development programmes will require improved country's capacity especially in establishing Sector Wide Approach (SWAp) under which all significant funding supports a single national forest programme. The move from project-based assistance towards a Sector Wide Approach is a gradual process requiring strong government leadership and the collaboration and support of development partners.

Also new mechanisms will be developed to facilitate that the potential investors in forest industry will benefit from the availability of credit facilities. The forest sector will work in close collaboration with private sector, government, private financial institutions, international financing institutions and relevant international special facilities to ensure that the right mechanisms are in place.

Key Institutions, Stakeholders and Lead Actors in NFP Implementation

In the implementation of the NFP, the central and local governments, private sector, NGOs, CBOs at all levels and the international community have key roles to play so as to maximize the benefits and minimize the costs of management. While the central government will focus more on coordinating, guiding and monitoring implementation, local governments and the private sector will be responsible for the actual management.

Implementation arrangements for forest reserves including plantations and general lands, a semi-autonomous Executive Agency/(cies) will be established at national level. The operations will be based on the results of different feasibility studies and evaluations currently underway. In the field level activities, ongoing reforms under the Local Government Reform Programme provide a framework for organizational arrangements to support forest management. The ultimate goal is to integrate and mainstream pilot activities into the district plans in a programme approach. Implementation modalities for the different sets of forests include community-based

forestry management under the respective local governments, joint forest management where partnership with central government is a key and private forests management including plantations and natural forests.

In this respect, some key institutions include the Regional Administration and Local Government, Lands, natural resources and other land based sectors, research and training institutions (Sokoine University of Agriculture – Faculty of Forestry and Nature Conservation and Tanzania Forest Research Institute), Civil Service Department and Legal affairs and Private Sector Foundation.

Under these roles and responsibilities, different tasks include:

- **The FBD:** providing co-financing for planned activities at the local levels, but also for services, such as capacity building, facilitation, monitoring, evaluation etc. to be conducted from the central and regional levels.
- **The Regional Secretariat:** forming a link between FBD and the local authorities by advising and facilitating implementation in the local governments.
- **The District Council:** facilitating planning and implementation through extension, providing technical assistance and capacity building, mobilising financial resources for implementation of planned activities from different sources.
- **Private sector, NGOs, CBOs and Communities:** funding and management of forest development.

1. INTRODUCTION

1.1 Goal of the National Forest Programme Process

The goal of the Tanzanian National Forest Programme (NFP) is to promote the conservation and sustainable use of forest resources to meet local, national and global needs. The NFP aims to achieve this through fostering national and international partnerships to manage, protect and restore forest resources and land production.

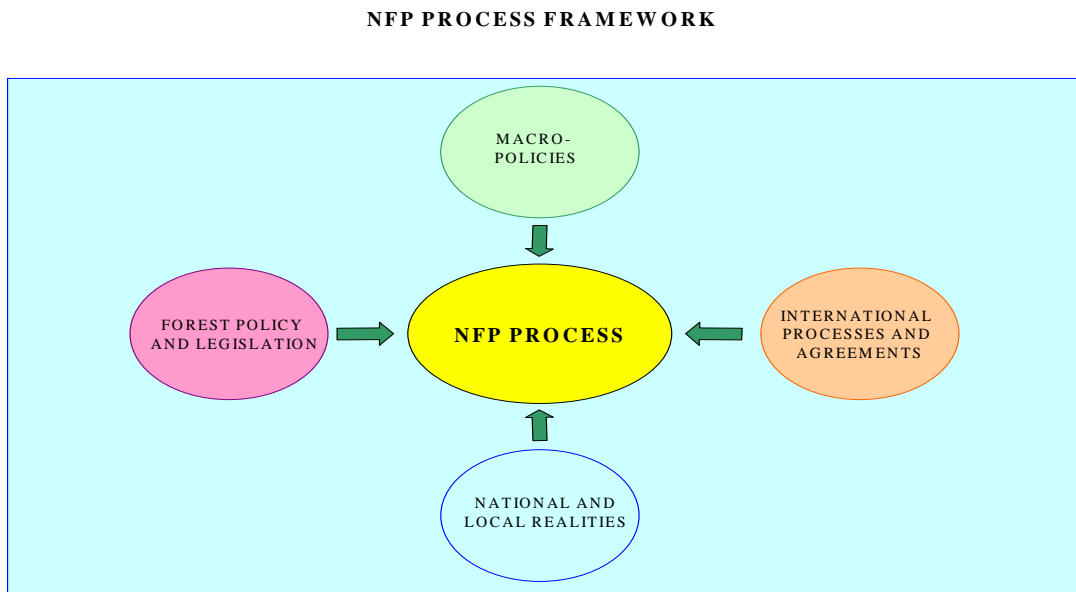
The Forestry and Beekeeping Division (FBD) of the Ministry of National Resources and Tourism (MNRT) embarked on the formulation of the National Forest Programme in January 2000 with the aim of:

- (i) establishing an instrument to put the National Forest Policy of 1998 and related legislation into practice taking all relevant macro-economic and sectoral reforms/policy changes in the country into account
- (ii) operationalizing the commitments and obligations derived from international agreements and intergovernmental processes.

The NFP Process Framework is shown in Fig.1.1.

The NFP process used the sectoral approach adopted in the forest sector planning in late 1980s and early 1990s when the Tanzania Forestry Action Plan was set up and which has subsequently been taken into consideration during the revision of the Forest Policy (1997-98) and the Forest Act (ongoing).

Figure 1.1 NFP Process Framework



In the NFP process, the four forest policy areas of the National Forest Policy were used as a starting point when developing NFP development programmes. The overall goal of the National Forest Policy of 1998 and the four forest policy areas are summarized in Box 1.1.

Box 1.1 Tanzania Forest Policy Goal and Focal Areas

The overall goal of the New Forest Policy is to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations.

The *New Forest Policy* focuses on four areas for implementation, namely:

- Forest Land Management
- Forest –based Industries and Products
- Ecosystem Conservation and Management
- Institutions and Human Resources

The NFP process in Tanzania has been guided by internationally accepted NFP principles (see Box 1.2). The Intergovernmental Panel on Forests (IPF) agreed on the basic concept of the National Forest Programme (NFP) as a country-specific approach to sustainable forest management (SFM). SFM covers economic, social, environmental and cultural elements of forestry.

Box 1.2 Key International NFP Principles

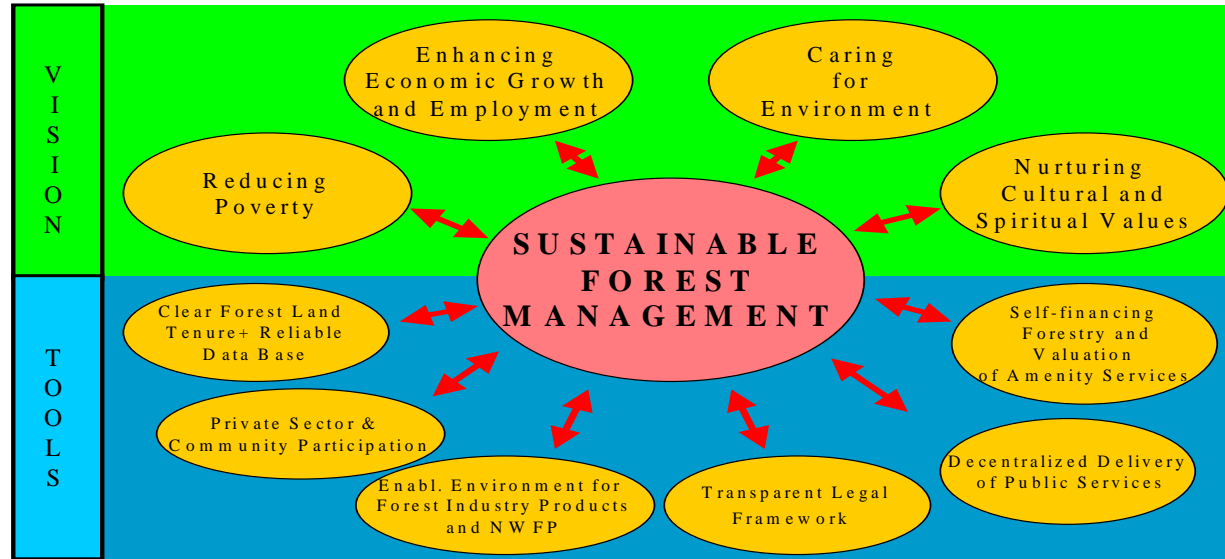
Internationally (FAO&IPF) recognized key NFP principles which have guided the Tanzanian NFP process:

- National Sovereignty and Country Leadership
- Sustainability of Forest Development
- Partnership
- Participation
- Holistic and Inter-sectoral Approach
- Long-term Iterative Process
- Capacity-Building
- Policy and Institutional Reform
- Consistency with the National Planning Framework and Global Initiatives
- Raising Awareness
- National Policy Commitment
- International Commitment

1.2 NFP Vision

The ultimate goal (“NFP vision”) of the NFP process in Tanzania is to reduce poverty and increase economic growth by managing forests sustainably without compromising environmental and cultural values. The key strategies for realizing the implementation of NFP Vision are shown in Fig.1.2.

Figure 1.2 NFP VISION AND STRATEGIES FOR ITS IMPLEMENTATION



The UNCED Conference held in Rio de Janeiro in 1992 changed the traditional role of forestry from managing forests only for wood production to managing forests as ecosystems that meet diverse socio-economic, environmental and cultural needs at the local, national and global levels. The Tanzanian NFP vision was built on this framework as summarized in Annex 1.

In Tanzania, putting SFM in action means, first and foremost, that the different requirements set for forests have to be looked into from the national socio-economic perspective, by taking, concurrently, the national and international biodiversity requirements into account. Forests also provide a vast range of intangible products and services, such as water, clean air, carbon sequestration, scenic beauty and cultural and spiritual values.

Balancing the pressing needs of the present generation with the needs of the future generations is a huge task and requires adequate political priority and resources. Some 50% of the population of 32 million is living in poverty, out of which 36% is unable to access all the basic needs, i.e. food, clothing, shelter, education and energy. Poverty is one of the contributing factors to the forest cover decline currently taking place at an estimated rate of 130,000-500,000 hectares per annum.

On the other hand, Tanzania is very rich in endemic flora and fauna. For example the Eastern Arc Mountains are among the 25 biodiversity hotspots in the world. At the same time, the mountain range provides 60% of the water consumed for different purposes in the country. Important rivers such as Ruaha, Ruvu, Rufiji and Pangani source their water from the Eastern Arc water catchments.

1.3 Need for Sectoral Programme

The National Forest Programme is needed in Tanzania in order to address properly the challenging tasks in forestry and increase the forest sector's political priority and political commitments to forestry.

The National Forest Policy emphasizes that SFM requires strategic sectoral planning, which takes into account changes in the macro-economic policies towards market economy, participation of the private sector and other relevant stakeholders. This is also clearly expressed in the proposed Forest Act.

So far, the design and implementation of forest sector plans and programmes have been fairly fragmented, not effectively coordinated and largely donor-driven. In addition, there has been inadequacies in human and institutional capacity building, self-financing and inter-sectoral cooperation for the different activities to achieve the desired outputs and benefits for the forestry development at national and local levels. The National Forest Programme has been conceived to put the New Forest Policy and related forthcoming legislation into operation.

At present, the donor contribution covers 68% of the financing for forest sector projects and programmes and the national contribution the remaining 32%. This financing structure is not sustainable and requires increased national self-financing.

Presently, only 5-10% of potential royalties and other fees have been collected by the Government. Later on, also sector-based basket funding mechanism is worth exploring and establishing to rationalize and streamline donor support in forest sector.

1.4 Key NFP Process Elements and Major Steps Taken

The major NFP formulation process elements have been: core strategic planning in participatory and consultative process; analysis of financing; capacity building and information dissemination. The setting up of monitoring and evaluation system for the NFP will take place when the actual implementation of the Programme starts. (See Box 1.3 and Figure 1.3).

Box 1.3 Major NFP Formulation Process Elements

Key process elements when setting up practical, participatory and financially sound NFP framework in Tanzania:

- Core Strategic Planning in Participatory & Consultative Process
- Analysis of Financing
- Change Management and Capacity-building
- Information Dissemination, Participation and Networking
- Setting Up Monitoring and Evaluation System for NFP

The key steps taken during the NFP formulation process from January 2000 to February 2001 in terms of consultative workshops, seminars, special studies etc. are given in a detailed form in Annex 2. In a nutshell, five major steps were taken to establish the development programmes for four Forest Policy areas. These are:

- issues determination
- categorizing and redefining the issues
- prioritisation of the redefined issues and establishing key outputs and performance indicators for them
- establishing key activities by outputs and
- creating programmes and defining strategies and mechanisms for their implementation.

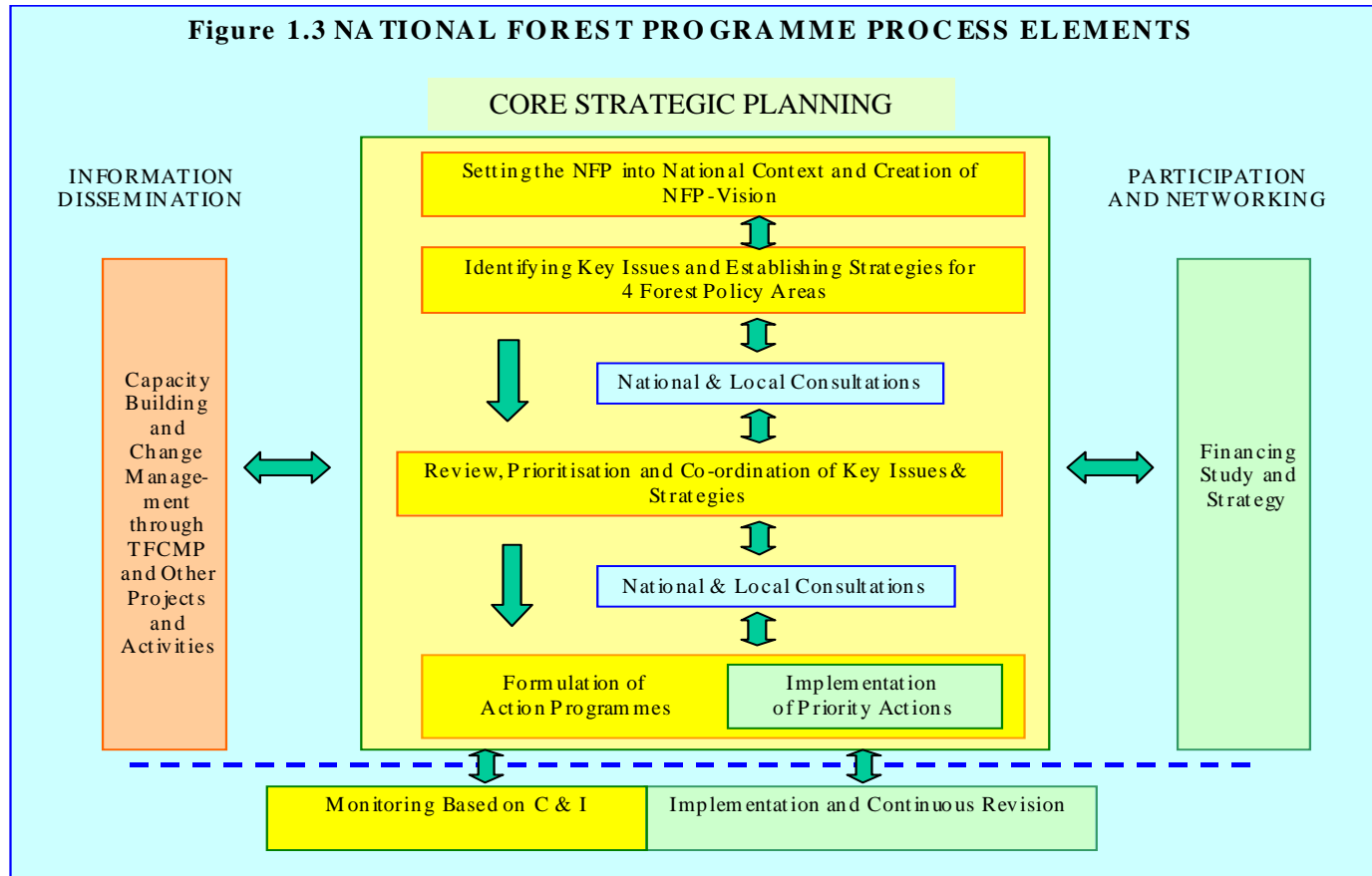
The NFP development for the four Forest Policy areas has been carried out by four National Task Forces in a consultative manner. All Task Forces have worked under the supervision of National NFP Coordinating Unit (CU). Altogether the NFP CU had 40 meetings and several working seminars. A Steering Committee has guided and Forestry Advisory Group (FAG) advised the NFP process.

In NFP formulation, and later on in its implementation and revision, a broad-based participation of all relevant stakeholders has been crucial in order to prepare realistic development programmes. Consultations were organized on national and local levels, as shown in Table 1.1 to 1.3.

Table 1.1 NFP Orientation Workshops at National Level

Orientation Workshops at National Level with Key Stakeholders	Dates	No of Participants
Ecosystem Conservation and Management	29 February to 1 March, 2000	43
Forest Land Management	14 to 15 March, 2000	32
Forest-based Industries and Products	28 to 29 March, 2000	32
Institutions and Human Resources	4 to 5 April, 2000	34
Total		141

Figure 1.3 NATIONAL FOREST PROGRAMME PROCESS ELEMENTS



Besides Orientation Workshops at the National Level the four other National Workshops were organized to find consensus on the major issues, their redefinition and key outputs and indicators.

Table 1.2 Other NFP Workshops at National Level

Other National Workshops with Key Stakeholders	Dates	No of Participants
Best Practices and Lessons of Experience for Designing the NFP	9 to 10, August, 2000	42
National Strategies and Priority Actions	7 to 8, November, 2000	40
International Forest-related Initiatives in Support of the National Forest Programme of Tanzania	4 th –8 th December 2000	22
Gender Involvement in Forestry	28, February, 2001	35
Total		139

In addition, six local level consultations were organized at zonal level from 15th August to 8th September 2000 to make NFP process as participatory and transparent as possible and to incorporate the views from the grassroots to the NFP strategies and programmes formulation.

Table 1.3 Local Level NFP Consultations

Local Level Consultations with Key Stakeholders	Dates	No of participants
Babati	15 th August, 2000	37
Tanga	17 th August, 2000	27
Mwanza	28 th August, 2000	26
Dodoma	8 th August, 2000	28
Mtwara	31 st August, 2000	23
Liwale	2 nd September, 2000	50
Iringa	4 th September, 2000	27
Total		218

2. CONTEXT FOR SECTORAL DEVELOPMENT

2.1 Macro-economic Policies and Strategies

From 1960s to 1980s, Tanzania pursued policies for economic growth and development that were based on restrictions, controls and direct state investments in commercial and management in all service and economic sectors. In the late 1970s and early 1980s the economy and social services sectors faced major crises including general decline in Gross Domestic Product (GDP) growth and per capita income, fiscal deficits and deterioration of terms of trade and social services. Since mid 1980s Tanzania adopted a series of emergency plans, economic recovery programmes, policies and institutional reforms aimed at revamping the national economy and facilitate overall growth. These reforms include (i) Macro-Economic Policy Framework, (ii) Planning and Budgetary Management System Reform (Rolling Plan and Forward Budget, RPF; Performance-based Budgeting, and recently Medium Term Expenditure Framework, MTEF), (iii) Public Administration Reform (Civil Service Reform Programme), (iv) Financial Sector Reform and Monetary Policy, (v) Parastatal Sector Reform, and (iv) Local Government Reform Programme.

These socio-economic reforms are geared towards:

- combating poverty and deprivation in order to improve people's welfare;
- creating an enabling environment for a strong private sector;
- ensuring macro-economic stability;
- improving efficiency in the use of public resources;
- maintaining an environmentally sustainable development path, and
- reducing government involvement in directly productive activities.

The strategies for realizing these objectives are embedded in creation of an attractive setting for the development of private enterprises and parastatal sector restructuring through privatization or liquidation for optimization of resources use. Alongside these reforms, the productive functions of the government have been devolved to the local governments, communities and the private sector.

2.2 Macro-Economic Policy Framework and Socio-economic Development

The country's GDP has been increasing for the last decade. For example, the GDP growth, at constant 1992 prices, rose by 4.5 % in 1996 compared with the growth rate of 3.6 % recorded in 1995 (Bank of Tanzania 1997). The GDP growth has been higher than the population growth during this period. The large decline in inflation from close to 30% in 1995 to little more than 7.9% in 2000 is a sign of strong improvement in macroeconomic policies. Government has given strong priority to expenditure control and the strengthening of tax administration during the past few years. However, Tanzania collects still less than 13% of its GDP as government revenue. Recent statistics on key economic indicators are presented in Table 2.1.

Table 2.1 Key Economic Indicators (in USD)

	1995	1996	1997	1999	2000
GDP (mill.)	4622.5	5676.2	6785.4	8226.0	
GDP per capita	168.6	200.6	233.0	284.5	288.2
GDP growth, (%)	3.6	4.5	3.5	4.6	5.1
GDP growth/capita	0.7	1.6	0.7	1.2	1.8
Inflation, (%)	28.4	21.0	16.1	12.8	7.9
Balance of Payment (million)	-382.1	-231.2	-633.4	-636.7	-639.6

Source: Tanzania Bureau of Statistics, 2000.

As a result of improving national economy, Consumer Price Index showed a decline of inflation rate to 12.8% in 1999, which is attributed to continued growth in production, services delivery and improvement in monetary reforms. Despite this optimism, continued price increases for petroleum and foodstuffs disfavour majority of the low-income population.

In terms of economic performance, foreign income from exports has remained relatively low with a total of 541 million USD in 1999 as compared to imports that reached 1,418.6 million USD. As of December 1999, the national foreign debt had reached 7.3 billion USD, which is an average of USD 260 per capita whereas the annual GDP per capita is USD 284.5. Implications of this scenario include stunted growth in all the service sectors (health, education and water), the productive sectors (natural resources, agriculture and industries) as well as support services and infrastructure. This further “enhances” poverty in the country. However, the government is implementing economic measures to improve economic performance. These include budgetary controls, improvement in revenue collection, tax reforms and creation of enabling environment for private sector investments and infrastructure development.

The Structural Adjustment Programme (SAP), Economic and Social Action Programme (ESAP) and Economic Recovery Programme (ERP) have had impacts on forest development in the country. For example removal of subsidies for agricultural inputs forced smallholder farmers to practice shifting cultivation, which has led to forest degradation and deforestation.

2.3 Population and Economy

The population of Tanzanian in year 2000 was estimated to be around 32 million, growing at an average rate of 2.8% per annum. About 75% of the population lives in rural areas and 25% in urban area. Urbanization is growing fast in Tanzania with the urban-rural population ratio increasing from 15:85 in 1975 to 25:75 in 2000. The population density is about 35 people per square kilometre. The average life expectancy at birth is about 50 years and the household size is about 5 people. The annual per capita GDP is about USD 284.5, which places Tanzania among the poorest countries in the world.

2.4 Poverty Reduction Strategy

The government of Tanzania prepared the Poverty Reduction Strategy (PRS) having been declared eligible for the debt relief under the HIPC initiative. PRS is a consolidation of earlier initiatives that include the National Poverty Eradication Strategy (NPES) developed in 1997. The strategy is meant to tackle the constraints manifesting poverty, which include poor governance, illiteracy, poor health, poor infrastructure and low agricultural productivity and marketing that has led to inadequate food security. The focus is to improve income and human development. The socio-economic reforms that concentrate on economic growth from the current annual rate of 3.5% to over 6% and social development emphasize on decentralization of the production functions with broad participation of the local governments, local communities and the private sector. The strategies include creation of enabling environment for good governance and gender balanced participation; capacity building for enhancing economic growth, and equity in the agriculture sector, industry, infrastructure and marketing, and improvement in the health, education, water supply and environmental conservation. The forest sector therefore has a great role to play as regards environmental conservation, agricultural production and supply of water besides the direct benefits related to employment opportunities and contribution to the national economy.

2.5 Planning and Budgetary Management System Reform

The Rolling Plan and Forward Budget (RPF) and Performance Budgeting were adopted as the planning and budgeting framework beginning mid-1990s, with a 3-year horizon and currently the Medium Term Expenditure Framework (MTEF), linking the operational budget planning with government long-term objectives and strategies. The budgeting is since then done according to the available resources, and not as per needs, which was the case earlier.

Performance budgeting and MTEF have placed a strong pressure on forest sector necessitating administrative and financial improvements where the public sector forestry has to compete for the scarce government resources. The approval by the government for the forest sector to retain revenue from its own collections has provided for improvements in investment and operational costs for the forest sector management. This has led to limitation of Treasury subventions to payment of personal emoluments for forest staff while donor financing continues to support some projects. Beginning year 2000, the government has also approved retention of the Logging and Miscellaneous Deposit Account (LMDA) for all forest plantations amounting to about 45% of the forest royalties to service silvicultural and road maintenance activities in the plantations. The challenge is to increase sector's revenue base and improve its own revenue collection in order to be able to maintain or expand its operations

2.6 Public Administration and Local Government Reforms

The Civil Service Reform Programme (CSRP) and subsequent Public Service Reform Programme (PSRP) involve restructuring of public administration, based on identified critical and specific tasks that will be the core function of the government. The reforms include organizational and efficiency reviews of all ministries and

departments, and their subsequent reorganization. The key components of the PSRP are provided in Box 2.1.

Box 2.1 Key Components of the Public Service Reform Programme

- Introduction of performance management system in ministries, departments and public agencies,
- Transfer of non-core functions of government to private sector,
- Creation and operationalization of executive agencies with significant autonomy,
- Introduction and improvement of public service management information systems,
- Strengthening of civil service leadership, management and good governance through open and competitive recruitment and performance appraisal.

The PSRP will have fundamental impacts on forest sector administration, too. These include establishment of executive agency (ies) for the management of forest resources currently under FBD.

The *Forestry and Beekeeping Division's (FBD)* role is to support and coordinate other stakeholders in forestry development by providing enabling environment through:

- Setting appropriate policy and regulatory frameworks
- Ensuring availability of raw materials
- Providing market information
- Rendering research services
- Facilitating transfer of technology
- Providing financial incentives
- Providing extension services
- Facilitating availability of financial sources i.e. credit facilities.

The important aspect is that FBD should strive through various management options to ensure improved and sustainable management of both the natural and plantation forests.

The Local Government Reform Programme (LGRP)

The Local Government Reform Programme (LGRP) was developed *to improve the quality of and access to public services provided through or facilitated by local government authorities*. Changes being introduced in the reformed local governments cover financial and human resource management and organizational structures and functions. Among initiatives being undertaken include sectoral reforms aimed at improving the coverage and quality of service delivery of or in all sectors including forest management and fostering reform activities which have been introduced within the Local Governments (LGAs) through pilot projects. In the forest sector, these include local forest and collaborative management interventions undertaken in the

districts. It is anticipated that these pilot projects will be streamlined in the local governments' administration and replicated throughout the country.

The implementation strategy for LGRP include, decentralization of authority and responsibilities; strengthening accountability of Local Government and increasing the resources available to LGAs by improving the share of viable revenue sources available.

Local government reform is implemented in phases. The first phase, involving 38 local authorities was implemented in the year 2000. The second phase, which will also involve another batch of about same number of local authorities, will be carried out in 2001 and the last phase, which will involve the remaining local authorities, will start in January 2002. The sequencing was adopted to enable effective streamlining of the reform measures into the Local Authorities' annual plans and budgets. It also allows for the facilitation of the sector reforms and provides for experience learned in the earlier phases to feed into the subsequent phases through constant internal evaluation.

Roles within the forest administration under this set up are provided in three levels i.e. the national, regional and council levels. FBD's role is facilitation of the local government authorities in their responsibility to provide services. This involves policymaking, quality assurance through setting of management standards, and regulatory framework, monitoring accountability and supportive and facilitative functions such as provision of adequate human and financial resources.

The President's Office - Regional Administration and Local Government (PO-RALG), through the Local Government Reform Team (LGRT) is charged with the task of spearheading implementation of local government reform process meant to clarify sector specific roles. Relevant areas as regards forest management include; guiding the implementation of forest management by providing technical support to local government authorities; setting national minimum standards of forest services and monitoring quality attainment for the necessary management interventions in the local level; advising on capacity building for the forest sector at local level and facilitating dissemination of forest information

Regional administration has been restructured to enable and provide backstopping to local government authorities, communities and private sector in implementing and controlling forest management. However, at the district level where most responsibilities will be transferred to, the administrative set up does not facilitate efficient linkage between technical sectors and the respective district forest management authority. The parallel administrative set up requires effective coordination to ensure sustainable management of forest through reduction of overlaps and efficient utilization of resources.

2.7 Cross-Sectoral Issues and Linkages

Forest management is impacted by a number of functions and services in other related sector such as agricultural production, livestock development, wildlife management, mining, energy and the overall land development. This necessitates the need for formal cross-sectoral coordination and emphasises on the importance of harmonization of

respective policies and instruments to ensure sustainable management with sound ecological systems in relation to ensuring sustainable land productivity including enhancing soil fertility, hydrological balance and conservation of biological diversity. Emphasis is in the spirit of ensuring sustainable and equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health or safety; preventing and controlling degradation of land, water, vegetation and air which constitute our life support systems; and conserving and enhancing our natural and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania. Table 2.1 summarises cross-sectoral issues and linkages.

Table 2.2 Important Cross-Sectoral Issues and Implications

Sector	Issues	Implications	Geographical effects of the sectoral policies and instruments
Environment	<ul style="list-style-type: none"> • Environmental degradation resulting from unsustainable and inequitable use of forest resources • Degradation of land, water and vegetation • Conserving and enhancing biological diversity of unique ecosystems • Improving the condition and productivity of degraded areas 	<ul style="list-style-type: none"> • Environmental consideration in all land and forest development activities • Closer coordination and cooperation in the environment agenda at local, national, regional and global level 	Country wide
Agriculture	<ul style="list-style-type: none"> • Environmental degradation and deforestation related to agriculture • Unharmonized extension services • Conflicting land use planning 	<ul style="list-style-type: none"> • Improved agricultural production through harmonised extension service, integrated land uses. • Enhanced food security from improved on productivity on land 	Countrywide
Energy	<ul style="list-style-type: none"> • Ensuring that existing and expanded supply of energy is environmentally sustainable • Improving the availability, 	<ul style="list-style-type: none"> • Expanded supply of wood fuel, • Availability alternative sources of energy supply • Reduction in forest loss for wood fuel, sustainable 	Regions with satisfactory woodfuel supply: Coast, Kigoma, Lindi, Morogoro, Mtwara, Rukwa, Ruvuma and Tanga. Regions with moderate woodfuel supply:

Sector	Issues	Implications	Geographical effects of the sectoral policies and instruments
	reliability and security of energy supply <ul style="list-style-type: none"> Promotion and dissemination of affordable energy technologies 	utilization.	Arusha, Dodoma, Iringa, Mbeya, Singida, and Tabora. Regions with severe woodfuel scarcity: Dar es Salaam, Kagera, Kilimanjaro, Mara, Mwanza, and Shinyanga
Health	<ul style="list-style-type: none"> Collaborative management of sites of useful species Collaborative research on the usefulness of plant species for plant-based medicines 	<ul style="list-style-type: none"> Increasing utilization of plant species in medicine Closer collaboration in forest management for biodiversity conservation 	Countrywide
Lands	<ul style="list-style-type: none"> Land tenure, ownership and land use conflicts versus sustainable forest management Land use planning for forest development activities 	<ul style="list-style-type: none"> Participatory land use planning. Definition and clarification of land ownership and tenurial rights Close collaboration and coordination in land development activities Demarcation of forest land to facilitate operations of private sector and specialized agencies 	Countrywide
Mineral	<ul style="list-style-type: none"> Conflicts related to land use Environmental conservation with respect to mineral sector development 	<ul style="list-style-type: none"> Reduction in conflicts related to land use for mining activities More environmental friendly technologies applied 	Mineral rich areas i.e. Shinyanga, Mwanza, Arusha, Ruvuma, Morogoro and the coastal regions
Water	<ul style="list-style-type: none"> Conflicting interests in water resources management 	<ul style="list-style-type: none"> Participatory management of watersheds through reduction of conflicts 	Catchment forests rich regions i.e. Arusha, Kilimanjaro, Morogoro, Tanga, Iringa, Mbeya
Wildlife	<ul style="list-style-type: none"> Conflicting interests in land use and 	<ul style="list-style-type: none"> Harmonizing conflicts in land uses in wildlife- 	Countrywide

Sector	Issues	Implications	Geographical effects of the sectoral policies and instruments
	fragmented institutional framework <ul style="list-style-type: none"> • Coordination in management of overlapping forests and integration of participatory management approaches 	forest areas <ul style="list-style-type: none"> • Improved coordination in management of overlapping forests/wildlife • Sustainable management of wildlife/forest biological diversity 	
Gender	<ul style="list-style-type: none"> • Increased desertification due to unsustainable utilization of forests and environmental degradation. 	<ul style="list-style-type: none"> • Poor crop yields, increased workload, and women walking longer distances to fetch firewood and water. 	Central and other regions i.e. Dodoma, Shinyanga, Mwanza, Arusha, Iringa, etc.

2.8 International Treaties and Initiatives

The UN Conference on Environment and Development (UNCED) in 1992 adopted globally authoritative Forest Principles and cross-sectoral recommendations on forest conservation (Chapter 11 of Agenda 21) encompassing holistic and cross-sectoral approach and stressing the sovereign right of individual countries towards sustainable forest management. The current international forest regime in which Tanzania has been participating and implementing in utilization and management of forests at national level is composed of numerous instruments, including global and regional conventions, agreements, resolutions and recommendations of international organizations and conferences and other programmes. These include; Convention on Biological Diversity (CBD), the UN Convention on Combating Desertification and Drought (CCD) and its protocol; United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol; United Nations Forum on Forests (UNFF); Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African region and related Protocols.

Tanzania having signed and being a party to all these, has the obligation of implementing recommendations for the respective initiatives. This includes development of policies supporting sustainable forest management and formulating and implementing programmes towards the same. On the other hand, Tanzania is reviewing obligations and opportunities provided in terms of financial and technical assistance, transfer of technology and knowledge and capacity building under the respective conventions. A summary of key obligations, opportunities and implications of these initiatives to the country's forest resources management is provided in Table 2.3.

Table 2.2 Obligations, Opportunities and Implications of International Initiatives to Tanzania's Forest Management

Convention/ Initiative	Obligations	Opportunities	Implications
Convention on Biological Diversity (CBD)	<ul style="list-style-type: none"> • Promote conservation of biological diversity • Development of programmes/projects for biodiversity conservation • Preparation of National Biodiversity Strategy and Action Plan 	<ul style="list-style-type: none"> • Financial and technical assistance • Transfer of technology and knowledge • Capacity building under the respective conventions 	<ul style="list-style-type: none"> • Sustainable use of biological diversity components and fair and equitable sharing arising out of the utilization of genetic resources
Convention on Combating Desertification and Drought (CCD)	<ul style="list-style-type: none"> • Mitigate the effect of drought through effective action at all levels • Formulate the National Action Programme (NAP) • Preparation of a National Environmental Fund to finance the Action Programme • Implementing Programmes/Projects to combating desertification through central and local government, NGOs, communities and the private sector 	<ul style="list-style-type: none"> • Financial and technical assistance, • Capacity building under the respective conventions 	<ul style="list-style-type: none"> • Country's commitment to the control of activities contributing to desertification and implementation of actions aimed at combating desertification
United Nations Framework Convention on Climate Change (UNFCCC)	<ul style="list-style-type: none"> • Development of programmes related to management of sources and sinks of greenhouse gases, • Development of technological and other options for mitigation of greenhouse gases • Assessment of vulnerability and adaptation of climate change impacts • Development of a National Action Plan on climate change 	<ul style="list-style-type: none"> • Financial and technical assistance • Transfer of technology and knowledge • Capacity building under the respective conventions 	<ul style="list-style-type: none"> • Management of forest estates both natural and plantations to contribute to broadening sinks for greenhouse gases. • Review opportunities available under this Convention and its protocol.
United Nations Forum on Forests (UNFF)	<ul style="list-style-type: none"> • Promote sustainable forest management (SFM) 	<ul style="list-style-type: none"> • Partnerships building. • International 	<ul style="list-style-type: none"> • Recognition of the multiple environmental

Convention/ Initiative	Obligations	Opportunities	Implications
	<ul style="list-style-type: none"> • Policy development, dialogue among partners and enhancing cooperation and coordination • Reduction of deforestation and degradation of forests 	<p>cooperation</p> <ul style="list-style-type: none"> • Financial and technology transfer 	<p>values and benefits of forests, for local, national and international interests.</p> <ul style="list-style-type: none"> • Participation and implementation of recommendations of the process.
Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African region	<ul style="list-style-type: none"> • Management of protected areas and wild fauna and flora • Implementation of projects related to • Coastal and Marine zone Management 	<ul style="list-style-type: none"> • Partnership development for transboundary issues 	<ul style="list-style-type: none"> • Development of rational utilization of the coastal zone resources.
East African Community (EAC)	<ul style="list-style-type: none"> • Develop Guidelines and common regulations for the conservation of shared ecosystems • Application of common practices in conservation and utilization of training and research facilities. 	<ul style="list-style-type: none"> • Partnership development for transboundary issues 	<ul style="list-style-type: none"> • Consideration of cross-border effects of management and utilization practices.
Southern African Development Community (SADC)	<ul style="list-style-type: none"> • Developing/harmonizing sectoral strategies policies/programmes for management of transboundary forests, biodiversity and environmental conservation. • Setting up institutional arrangements to facilitate mechanisms for sustainable management of forests 	<ul style="list-style-type: none"> • Complementarities to national initiatives • Co-operation, mainly; human resources development, research and training, trade in forest products, services and forest industries development 	<ul style="list-style-type: none"> • Participation in regional SADC programmes and initiatives

3. CURRENT STATUS AND TRENDS IN THE FOREST SECTOR

3.1 Sectoral Contribution to the Economy at National and Local Levels

Forests are important in Tanzania due to the numerous goods and services they offer both in the national economy and to the society. These include wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs. They also provide a range of unique natural ecosystems, biological diversity and genetic resources. Forests are as well an important economic base for development in terms of providing revenue from various direct value products and services such as timber and non-timber products, export earnings and tourism. In terms of linkage and support to other sector, forest functions in stabilizing stream flows and therefore reduce disasters such as landslides, erosion and floods in areas of steep topography and high precipitation. Forests also have an important function in the supply of irrigation water for lowland farming and fish production. Furthermore, due to increasing water shortages, public expectations on the role of forests have widened to include provision of stable supply of good quality water. Biological product demands has increased the need for forests and conservation of biological diversity. Environmental degradation leads to widespread poverty, which in turn manifests economic stagnation. Forests degradation would result in decline of all the services and products related to forests.

In both rural and urban areas, for instance, wood-based energy consumption is estimated to account for about 92% of total energy consumed in the country. The estimated contribution to the Gross Domestic Product (GDP) in 1998 was 3.3% (including some wildlife related services) as shown in Table 3.1. The sector employs about 3% of paid labour and even a bigger proportion of people in the informal forestry related sector activities.

Table 3.1 Forest Sector Contribution to the GDP (1990 – 1999)

Year	GDP (Tshs mil.)	% Contribution	Overall GDP (Tshs. mil.)
1990	23,424	3.1	723,650
1991	31,627	3.2	944,548
1992	40,908	3.2	1,222,665
1993	52,576	3.3	1,546,501
1994	71,328	3.4	1,972,864
1995	93,772	3.4	2,619,105
1996	120,054	3.5	3,216,060
1997	147,666	3.4	3,967,091
1998	168,340	3.3	4,714,617
1999	173,466	2.8	5,651,580

Source: Planning Commission, 1999

3.2 Forest Resources

Tanzania has about 33.5 million hectares of forests and woodlands that constitute 38% of the total land area in the mainland. The forests offer habitat for wildlife,

beekeeping, unique natural ecosystems and genetic resources as well as forming an important economic base for the country's development. About 13 million hectares of the forests have been gazetted as forest reserves including 83,000 hectares of industrial plantations and 1.6 million hectares of strategic forests such as water catchment and mangroves owned and managed by the central and local governments through the Forest and Beekeeping Division in the Ministry of Natural Resources and Tourism. About 600,000 ha are owned and managed by local governments. Forests on the general lands as classified under the Forest Policy, Land and Village Acts cover 19 million ha. Forest distribution is given in Map 3.1.

Private and community forestry involves farm forestry, natural forest on leasehold lands and traditional forest areas/trees. The National Forest Policy advocates for private and community-based forestry, including village forest reserves and also the legal framework is now addressed in the draft Forest Act. The area under private and community forestry is estimated to be 70,000-150,000ha including community woodlots mostly of small sizes (<1.0 ha). Large plantations are owned by big private companies. Only a small proportion of natural forest plots exist on leased land.

Map1: (To be inserted)

The forests distribution by type, use and legal status is summarised in Box 3.1.

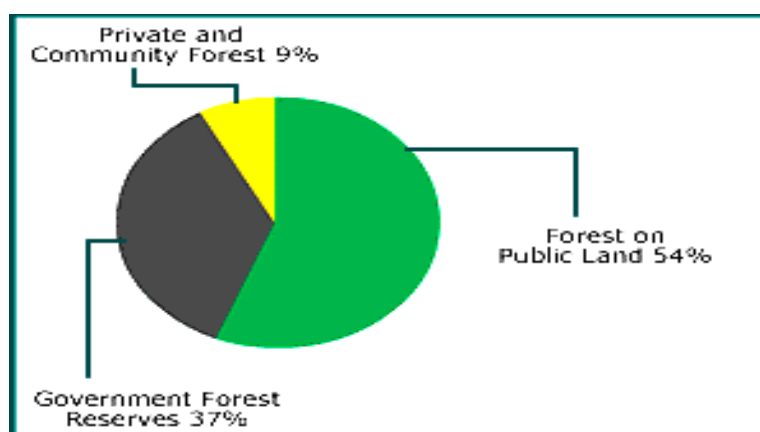
Box 3.1 Forest Distribution by Type, Use and Legal Status

Forest type	1 000 ha
Forests (other than mangrove forests)	1,141
Mangrove forests	115
Woodlands	32,299
Total	33,555
Use of forest land	
Production forest area	23,810
Protection forest area (mostly catchment areas)	9,745
Total	33,555
Legal status	
Forest reserves	12,517
Forest/woodlands within national parks, etc.	2,000
Non-reserved forest land	19,038
Total	33,555

Sources: FAO (1992) Forest Resources Assessment for Tropical Countries & FBD statistics

In terms of land cover the three categories are apportioned as given in Figure 3.1.

Figure 3.1 Forest Land Management Systems



Forests are increasingly becoming important in terms of rural and urban livelihoods, as there is an established cause-and-effect relationship between poverty and forest degradation in the cause of deriving subsistence households needs. The role of forests and trees in food security, contribution to water supply, providing economic alternatives and support to other sectors is also being recognized. This has necessitated

the shift of objectives and priority needs from traditional forest management for provision of timber and fuelwood to multiple trees and forest management. Again the recognition of the role of forests and trees in environmental conservation in terms of soil and water conservation, erosion control and regulation of climate has compelled more participation and concerns in the management of natural forests.

3.2.1 Central and Local Government Forest Reserves

Central and local government forest reserves are faced with low capability of the government institutions to manage these resources to meet the growing demands for fuelwood and other forest products and services. Centralized forest management has contributed to both market and policy failures in the forestry sector resulting to forest degradation due to encroachment, over-utilization, wildfires, unclear boundaries, lack of systematic management and inadequate resources for controlling illegal harvesting as well as inefficient revenue collection system. It has been estimated that only 5 to 10% of the revenue due from the forest reserves and general lands is collected.

Encroachment is rampant in almost all forest reserves. It is caused by a decline in soil fertility in the agricultural sector and overstocking in the livestock sector. The situation is aggravated with the lack of control over the forest resources and an inadequate development of economic activity to absorb the increased labour surplus from agriculture and livestock keeping.

Forest areas, which have catchment, biodiversity and other amenity values, can be managed under Joint Forest Management (JFM) between village communities and central government or local authorities.

3.2.2 Industrial Plantations

The government owned industrial plantations cover 83,000ha and are located in 16 different blocs all over the country. The major species are pines, cypress, eucalypts and teak. The annual cutting potential is estimated at about 1 mill m³.

Industrial plantations have a good potential to contribute to national economic, industrial and rural development, but currently plantations are poorly managed and do not supply enough quality wood to support modern and efficient forest industries (See Box 3.2).

Box 3.2 The Current Industrial Plantation Situation

- Plantations are not supplying enough quality wood to support establishment of a modern forest industry
- Average stumpage currently US \$ 4-5/m³, while calculated establishment and maintenance cost US\$ 10-11/m³
- No incentives for increasing plantations productivity and maximizing net revenue on a sustainable basis
- The net planted area and growing stock are declining in terms of area and quality
- Large areas are understocked because of inadequate management, fire and encroachment

- Some are overstocked because of backlog of thinning and poor demand
- Information base is grossly inadequate; most plantations do not have up-to-date management plans and inventories have not been undertaken
- Shortage of staff with necessary knowledge and skills to manage plantations
- Shortage of investment capital, unsupportive investment/incentive framework, and
- Poorly functioning timber markets create some constraints for private sector involvement

Source: TFCMP, 2001

3.2.3 Forests on General Lands

Forests on the general lands have been under constant pressure for conversion to other competing land uses such as agriculture (shifting cultivation), livestock grazing, settlements and industrial development and also suffer from repeated forest fires because of unclear ownership, absence of security of tenure and formal user rights. There has been little incentive for investment, systematic and sustainable management of these forests leading to continued degradation. This has resulted into degradation of the forest bringing the forest cover down to 38% (1999) from 44% (1971) at an estimated deforestation rate of between 130,000 and 500,000 ha per annum.

An instrument considered relevant for sustainable forest management in general lands is the establishment of village forest reserves with properly surveyed boundaries and management plans and managed under Community Based Forest Management (CBFM).

Currently, village forest reserves are proposed forests because they lack legal backing before the proposed Forest Act is in place. The majority of village forests are located in Arusha region. Other areas are Morogoro, Iringa, Pwani, Singida, Kilimanjaro, Lindi and Mara regions.

3.2.4 Private and Community Forestry

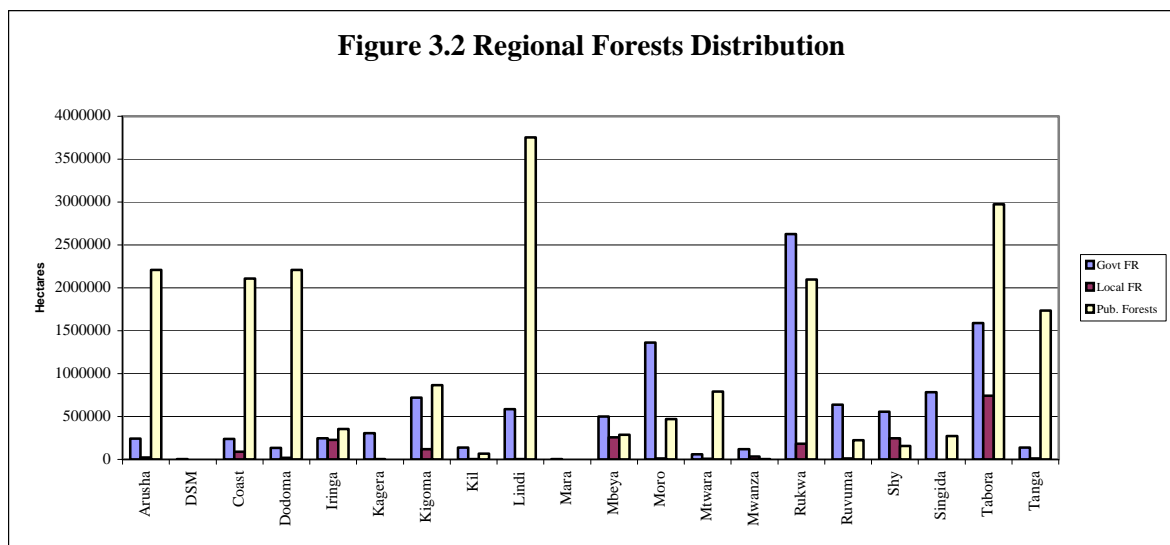
Forest plantation development by the private sector is a relatively new development. Currently, there are two private large-scale plantation projects in Tanzania (TFCMP, 2001). Kilombero Valley Teak Company plans to expand its teak plantations area from the current 2,900ha to 10,350ha by 2011. Its subsidiary Tanganyika Wattle Company grows besides wattle also pine and eucalyptus. These ventures have been financed by the Commonwealth Development Corporation. Escarpment Co/Kilombero Forest Ltd is another private plantation venture, with 1,800ha of pine and eucalyptus plantations. The major objective is to sequester CO₂ and generate revenue from trading carbon credits.

Tree planting by farmers and communities has taken place all over the country, but particularly in the Southern Highlands especially in Mufindi and Njombe districts in Iringa region. The area is estimated to be 70,000 to 150,000ha. Local communities and individual farmers represent a valuable resource which under right incentives and other forest policy instruments can be mobilized to grow trees on a large scale and cost-efficiently.

Issues embracing community and private forestry comprise land shortage in some areas and unclear land and tree tenure, particularly for women. Others include inadequate awareness and farmers' general knowledge of tree growing and sustainable forest management and agroforestry systems. Inadequate financial incentives and limited markets for wood products from private farms due to free wood supply from public lands limits investment on tree growing thus considered financially unattractive. Conflicting extension messages for local communities that do not address their preferences in terms of selection of species for tree planting and management of native species has not been adequately promoted as compared to planting of exotic species.

3.2.5 Regional Forest Resources

Regionally Arusha, Coast, Dodoma, Kigoma, Lindi, Morogoro, Rukwa, Tabora and Tanga have the biggest forest/woodland areas. In these regions also the share of general lands is the highest (See Figure 3.2). In Dodoma, Kigoma and Lindi the forest areas are savannah type woodlands, while in Arusha, Morogoro, Tanga, Iringa, Kilimanjaro and Mbeya there is a fairly large proportion of closed natural forests.



3.3 Forest Biodiversity

Forest biodiversity conservation in Tanzania is built in about 33.5 million hectares of forests and woodlands. Biodiversity is further elaborated in six ecological zones of the country, namely: Moist forest mosaic in the Lake Victoria Basin; Coastal forests and thickets; Montane forests in Eastern Arc Mountains; Acacia-Savannah and grasslands; *Acacia-commiphora* thornbush, and *Brachystegia-julbernadia* savannah woodlands, popularly known as “miombo” woodlands.

Tanzania has been classified as a “megadiversity” nation along with Democratic Republic of Congo, Brazil and Indonesia. The major reason for this high diversity of

species is the variety of habitats found in Tanzania (see Table 3.2). Forest biodiversity comprises biological diversity at the ecosystem, species and genetic levels.

Table 3.2 Some Critical Biodiversity Aspects in Forests and Woodlands in Tanzania

Habitat Type	Location	Importance
The Eastern Arc Montane Forests	Usambara, Ukaguru, Udzungwa and Uluguru Mountains	High diversity and endemism; also important catchment areas
Montane Grasslands	Udzungwa mountains, Ufipa plateau and Southern highlands	Remarkable and endemic flora
Coastal Forests (including mangroves) and thickets Mangroves	Coastal areas and Zanzibar	Many rare and endemic taxa and species and sub-species
Grasslands and open woodlands	Serengeti and Maasai Steppe in the North-west and North-east	Greatest concentration of large mammals in the world
Itigi thickets	Central Tanzania	Unique habitat due to high degree of endemism
Miombo woodlands	South and West of Tanzania	Some of the world's most significant population of elephants and black rhinos

Source: Tanzania Country Study on Biological Diversity (1998)

Forest reserves known as catchment forests are among the important watershed areas in Tanzania. These forests occupy only 2% of the country's total area. Largest catchment forests are found on the volcanic and crystalline mountains of Tanzania and in lowland forests, such as Rau in Moshi, Minziro in Kagera Region, and Kimboza in Morogoro.

About 3% of the country's surface area gazetted as forest reserves overlaps with the protected areas devoted to wildlife conservation. Therefore, wildlife management is taken into account in the present forest management planning. Altogether, Tanzania has allocated about 25% of its total areas to national parks, game reserves, and game controlled areas.

Increased encroachment and shifting cultivation both in natural protected and production forests are rapidly reducing the natural forest cover and forest biodiversity. The loss for different forest and woodland ecosystems from 1947 to 1990 is according to CEEST: tropical closed forest (6.6million ha), mangroves (0.13million ha.), wet, seasonal, dry woodlands (10.1million ha) and wooded grassland, i.e., savannah (3.1million ha) and bridge bushland/thicket (2.0 million ha).

Other factors contributing to biodiversity loss and loss of catchment values include such as fires, inefficient forest management, inadequate staff and facilities to control illicit felling, lack of baseline data on biodiversity. In addition, current forest management planning does not consider biodiversity and multiple functions of forests. Various large-scale investment projects such as logging, mining, agribusiness

may have destructive effects on forestlands and biodiversity. The biodiversity and catchment values are neither reflected in pricing of the forest produce.

Also encroachment, overgrazing, wildfires, illegal logging, poaching and lack of baseline data and poor coordination between Governmental bodies involved in wildlife and forest management have contributed to the deterioration of wildlife.

3.4 Forest Industries and Products

3.4.1 Mechanical and Chemical Wood Based Industry

Up till the early 1990's before the commencement of the divestiture of parastatals, most of the factories were owned by the government and managed by Tanzania Wood Industry Corporation – (TWICO). So far, the divestiture of the five forest product processing companies have been finalized and further five companies are either planned for privatization or are currently under negotiations. Also Southern Paper Mills Ltd (SPM), which is the only larger scale pulp and paper factory (60,000 tons/annum), is under privatization.

Forest industry in Tanzania is dominated by mechanical wood processing represented by sawmilling, furniture marts and joinery. The other forest-based industries encompass small-scale paper and board production, matches manufacturing, poles production, chipboard, fibreboard and blockboard manufacturing and tannin extraction.

In the early 1990s industrial wood consumption was at an average 750,000m³ a year distributed as follows: industrial sawmilling 51%, pitsawing 20%, wood-based products 3%, pulp and paper mills 21% and joinery and furniture industry 5%. At present, the industrial wood utilization is estimated to be about 1 to 1.5 m³ per annum.

The majority of forest industry plants currently operating in Tanzania depend on their raw material supply from industrial plantations. Especially, since the closure of the SPM in 1997 there has been a considerable oversupply of plantation grown softwood logs from the Sao Hill plantations in South. In some other regions, especially in the North, raw material availability is critical due to a large number of individual sawmillers.

Most millers harvesting timber from plantations are small-scale (1,000m³/ annum) sawmillers using mobile sawmills, saw benches and handsaws (pitsawing). Low capital-intensity indicates that there is a shortage of capital in sawmilling. There are only a few sawmills with modern, capital-intensive technology. Consequently, sawmilling is hampered by poor performance and inefficiency. The existing plants are often also far from the forest resources and there are serious problems with transportation due to poor infrastructure. Furthermore, forest industry suffers from lack of reliable information on raw material availability, market statistics and skilled labour.

Demand for sawn wood in the domestic markets is expected to increase between 4 to 6% per annum during the next ten years, i.e., 12,000 to 16,000m³ a year. Sustainable long-term supply of saw logs from industrial plantations is estimated at 540,000-

600,000m³ a year. The long-term supply of saw logs will, however, decline unless new planting and replanting schemes are quickly initiated. The quality of logs is also poor currently.

The harvesting and marketing of hardwoods from natural forests is declining in the “traditional” areas. This is due to dwindling supplies of raw materials and increasing operating costs, including royalty fees. Due to declining availability of acceptable log sizes of different hardwood species, especially Mninga, machine cut hardwood is becoming rare. Recently, a number of hardwood sawmillers have been closing down, which has resulted in increased pitsawing. Due to ineffective control and management of natural forests harvesting is mostly carried out illegally. Substitution of softwood for expensive hardwood will continue because of gradual change in end-user attitudes and high price of natural hardwoods.

However, some important natural forests still exist in the country, the raw material potential and biodiversity values of which should be assessed. The potential areas include Mtwara and Lindi regions, Rukwa (especially Mpanda) and Kigoma regions, Ruvuma region, South-West Morogoro (i.e. Ulanga and Kilombero Districts) as well as southern parts of Coast region.

3.4.2 Woodfuel

The energy balance in Tanzania is dominated by biomass-based fuels particularly fuelwood, charcoal and bio residues. Biomass-based fuels account for about 90% of primary energy supply. Commercial energy sources, namely: petroleum and electricity account for about 8% and 1% respectively, of the primary energy used while solar, wind, and coal account for less than 1% of energy used. For the foreseeable future, it is forecasted that woodfuel will continue to be the major source of energy to the majority of people in Tanzania.

Total wood consumption in Tanzania was estimated to be 42 million m³ in 1999, of which 40.4 million m³ or 95% was consumed as woodfuel. Out of this 26 million m³ was consumed in the rural areas as fuelwood and 13.4 million m³ in the urban areas, mainly as charcoal. Main rural industries using woodfuel in priority order are: tobacco curing, fish smoking, salt production, brick burning, bread baking, tea drying, pottery, lime production and processing of beeswax. During the next ten years the annual woodfuel consumption is forecasted to remain at 40 million m³.

Main sources of woodfuel for household domestic use in rural areas are trees in farmland and unreserved village forest areas. Fuelwood supply in most of the rural areas is regarded as a free good, and only cost input being labour spent to collect it and in the predominantly surplus rural areas, the opportunity cost of such labour is almost zero. However, in urban and peri-urban areas, supply sources of fuelwood is scarce because of depleted forests in their vicinity. Increasing demand of charcoal in urban area has increased deforestation in the production areas mainly in unreserved forestland and in some forest reserves.

The basic problem related to high dependence on woodfuel is lack of affordable sources of energy and lack of wood conversion technology. The fact that woodfuel is almost a free good works as a disincentive for development of new technologies and

utilization. Ongoing efforts to enhance sustainable supply of woodfuel are low as compared to the magnitude and impact of the growing need for woodfuel to the economy and environmental conservation. It is argued that it will be difficult to alleviate poverty in the country without ensuring sustainable and affordable energy services to the majority of the people whose main component is woodfuel. For example, about 98 percent of the Tanzania national budget on energy is directed to the development of electricity and fossil fuels, which accounts for only nine percent of the total energy consumed and is accessible to less than five percent of the total population. Formulation of the woodfuel strategy must take into account existing development strategies for the other energy sources in Tanzania mainly electricity, coal, natural gas, petroleum products and renewable energy sources (solar, wind, biogas etc). The challenges of the forestry and energy policies will be to stimulate greater use of improved woodfuel technologies and facilitate increased availability of improved energy services in rural areas.

3.4.3 Non-wood-based Industry and Products

At present the organizational structure of FBD does not address the issues related to non-wood forest products apart from beekeeping. Consequently, there are no data available to assess the supply and demand potentials and income generation opportunities. However, many of these products could play a key role in improving rural livelihoods and alleviating poverty.

The major products under artisanal wood-based industry and products are blackwood pieces and carvings. In 1999 the export earnings from these products amounted to USD 1.1 million or 30% of the total export value of forest products including bee products. Development of artisanal wood-based products is hampered by a narrow and declining resource base (e.g., muhuhu and mpingo), lack of efficient production technologies and poor marketing systems. Wood carving skills are also disappearing due to lack of prestige and attractiveness of this profession.

Only 3.5% of the production potential of the beekeeping sector is realized, the national honey and beeswax production being 4860 tons and 324 tons yearly, respectively. In 1999/2000 the export value of bee products (i.e. beeswax and honey) was USD 1.3 million or 35% of the total export value of the forest products.

Eco-tourism is considered as one of the alternative uses of natural forests, which has low negative impacts to the ecosystem. It is a potential source of income and revenue for the government and communities living adjacent to natural forests, as well as to private sector (tour operators, hotels etc.) that could render services to tourism. Especially natural forests with high biodiversity values and scenic beauty are considered to provide potential for ecotourism. The potential of eco-tourism as an income-generating activity in forestry is still to be assessed. Some issues, which will slow down the development of this area, are poor infrastructure and lack of services and marketing and a lack of legal framework.

There is a large variety of other NWFPs in Tanzania: food, fruit, nuts, medicinal plants, gums, resins, barks, natural dyes, aromatics, fibers etc. Some of these products have a significant positive impact on rural households in terms of generating cash income and supplementing everyday's diet. Production of other NWFPs suffers from

decline of forest cover, inadequate information on location and types of products, non-existence of local processing to produce value-added products. Neither the marketing side is in order, in terms of lack of organized marketing channels and availability of market information. There is also poor awareness as regards to the income-generation and food security potentials of NWFPs. Also assessment of indigenous knowledge (IK) is lacking.

3.4.4. Trade in Forest Products

Forest products have contributed significantly to the export earnings. Net export in forest products has been fluctuating in the last five years ranging from USD 2.5 to 14.1 million and the main products have been timber, carvings, tree seeds, and bee products. Table 3.3 summarises main forest exports from 1995 to 2000.

Table 3.3 Summary of Exports of Forest Products (1995/96-1999/2000)

Product	1995/96		1996/97		1997/98		1998/99		1999/2000	
	Amount	Value (USD 1000)	Amount	Value (USD 1000)	Amount	Value (USD 1000)	Amount	Value (USD 1000)	Amount	Value (USD 1000)
Logs, m ³	5,295	908.3	2,178	436	9,525	6,191.60	3,896.52	717.95	1366.71	382.43
Rough Sawn Timber, m ³	130	14.5	51	5.7	8,630.78	1,035.70	8,065.86	684.46	7964.71	993.00
Blackwood timber, m ³	74.2	923.9	28.6	355	107.5	1,357.60	122.26	1,193.20	75.72	852.32
Floorings, m ³	863.7	2613.5	329.7	998	1,125.47	3,405.60	67.76	128.40	45.65	76.25
Carvings, pcs	165,493	557.8	52,197	105	264,512	891.5	253,124	967.64	169,870	238.34
Tree seeds, tons	15.6	144.78	-	-	-	-	0.216	11.64	21.2	2.03
Beeswax, tons	202	677.9	202	678	316	1,044.80	332	1,202.70	251	1229.78
Honey, tons	-	-	2.46	2.1	225	274.9	39	35.53	44.7	32.51
(Others)	-	-	-	-	-	-	3,645.34	481.20	-	9.73
Total		5,840.68		2,578.96		14,180.80		5,422.72		3,616.39

Source: MNRT, 2000/01

Export earnings from logs and sawn wood trade amounted to USD 1.4 million in 1999/2000 (both hardwoods and softwoods), which is close to 40% of the total export value of forest products (incl. bee products). However, mostly the wood products are used in the local markets, because the quality of the products is low and they cannot compete in the international markets. The quality control and value added processing are key questions to expand exports and compete with the imported quality products.

In the future, the exports of pine plantation wood could be increased considerably to make use of all surplus wood not absorbed in the domestic markets and to increase the value of plantations by creating a market for quality wood. Increased competition in

the roundwood market would also result in more efficient pricing and would generate foreign exchange as required by the National Forest Policy.

The most potential pine sawn wood markets would be Middle-East, Egypt, China and East Asian markets. Though the pine export markets are very competitive they are also substantial. Tanzania could expand exports, if prices are competitive; quality and dimension requirements are met; new added value products are developed; consignments are large enough and regular supplies can be secured and local industries become more active in marketing efforts.

The domestic market of teak is limited but export opportunities are good. Wood from thinnings and low quality saw logs can be sold locally but all quality saw logs or sawn teak timber can potentially be exported to overseas, e.g. to India, Thailand, China and Western Europe.

The main use for eucalypts has been pulping, poles and fibreboards. At present there is no demand for pulping and demand for poles is far from absorbing all the potential supply. Management of eucalypts plantation has been poor and has to be geared towards quality pole production. Also possibility of growing eucalyptus saw logs should be explored, but presently special sawing and drying know-how and technology is non-existent in Tanzania.

3.5 Institutions and Human Resources

3.5.1 Current Institutions of Forest Administration

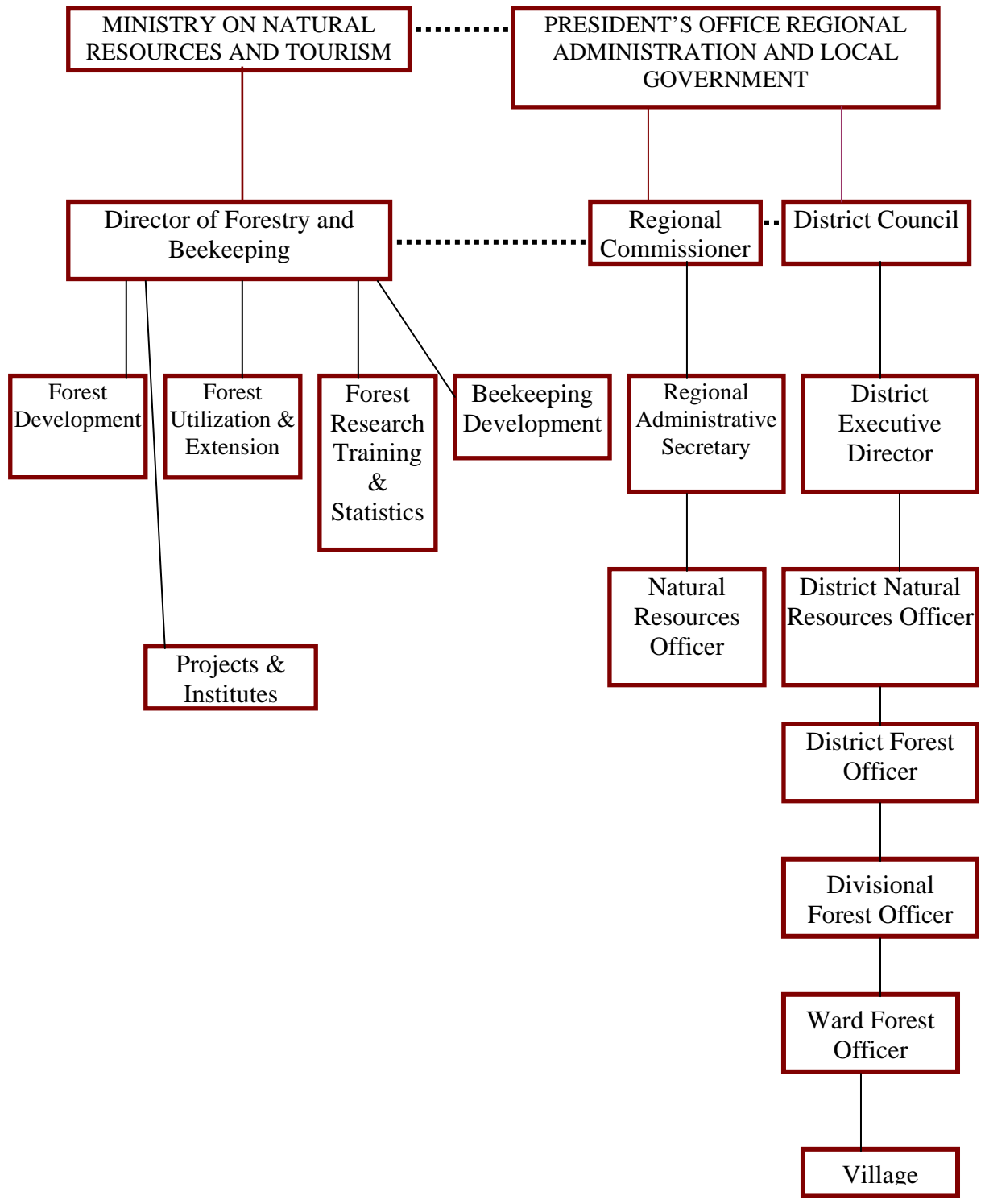
The forest sector administration involves the Forestry and Beekeeping Division (FBD) under the Ministry of Natural Resources and Tourism, and the President's Office Regional Administration and Local Governments (See Figure 3.3) The administration has been weak especially in linking the local governments, regional administration and central levels. The ongoing public and local government reforms provide a platform for decentralization and devolution of management decisions and for enhancing capacity in the respective levels.

Decentralized forest management to the local governments, communities and the private sector will require technical guidance through provision of effective extension services with harmonized messages especially regarding those dealing with land use in forestry and coordination in planning and execution of extension services.

Management and administration in the forest sector has been dominated by a high dependence on donor financing. Internal sources of revenue, mainly the forest royalties, have been low and undeveloped with a narrow base relying mostly on timber and fuelwood. The highest revenue collected so far has been Tshs 2.0 billion a year while the potential is estimated to be between Tshs 20 – 30 billion a year. The trends are in broadening the revenue base through introduction of new avenues and improvement of collection. Other options include utilization of the opportunities provided for under the international conventions and agreements such as the Framework Convention for Climate Change (UNFCCC), the Convention on Biological Diversity (CBD) and its protocol and the Convention on Combating Desertification and Drought (CCD). The forest sector in Tanzania has not been able to

effectively utilize these and other mechanisms including "Debt-for-Nature-Swaps" or promotion of programme approaches that would facilitate the use of "Basket Funding" from different sources.

Figure 3.3 Forest Administration



3.5.2 Forestry Research

Currently the major institutes conducting forestry related research are TAFORI, SUA and Ministry of Agriculture and Food Security. Forest research is guided by the National Forest Research Master Plan (NAFORM), which has been reoriented to address adequately both applied and basic research. Emphasis has been in linking forest management with the pressing local and international needs like socio-economic issues of poverty reduction, contribution of forests to food security, improvement of households' livelihood. Globally the trends are in establishing sustainable forest management considering aspects of biodiversity and conservation of natural forests. In this respect majority of research activities have been towards community and farm forestry to support development of appropriate tree planting, agroforestry technologies and integrated land management systems. Also management of natural forests is geared towards biodiversity conservation. Generally, forestry research is faced with inadequate funding and much more need to be done in terms of application of research findings since this is the area that touches on the majority of farmers in areas with increasing land scarcity, soil degradation and decreasing unit land productivity.

3.5.3 Training, Education and Extension Services

Forest sector is mandated to develop human resource capacity for the overall forestry development in the country. Following the decentralization and transfer of management to the local governments and private sector, forest training and education has since 1994 focused on reorienting capacity building in these levels. Low absorptive capacity of the private sector and local governments has seen a decline in number of enrolment and training mostly in the technical institutions to less than 50% of the full capacity. The focus has been in reviewing curricula in line with the actual field requirements mostly in promoting awareness and facilitating Sustainable Forest management (SFM) at decentralized levels.

Forest Training Institute (FTI), located in Arusha, trains technicians with two-year Certificate and Diploma courses in forestry and beekeeping. In addition, short training courses and refresher courses are provided. FTI's target group are employees in forestry and beekeeping.

FTI has a classroom and dormitory capacity to accommodate 300 students. Since 1988/90 to up to date the average two-yearly training output of Diploma holders has been 27 persons bi-annually. Respective output from certificate classes has numbered only 10 persons. Since 1991/1992 training of certificate holders has drastically dropped from 30 to 5 to 10 biannually. This is largely due to the Civil Service Reform Programme, which included the decision of the Government to embark on cost sharing strategy in financing training. The decision of the Government to freeze employment also has made most of the trainees unmarketable. The limited capacity and unwillingness of the private sector to employ the graduates has worsened the situation.

Presently only 50% of the operational costs of the institutes are financed by GoT. Therefore, the development and implementation of the training, procurement and

maintenance of the required facilities require identifying other sources of financing. On the other hand, the colleges are allowed to retain the funds they generate.

Forest Industries Training Institute (FITI), located in Moshi, offers certificate and short courses in sawmilling, logging and saw doctoring. After the change of ownership of the wood industries from TWICO to private owners the major target of training is geared towards the wood industry owners, managers, technicians, other workers and the public. Training demand is no longer automatic but it must be created. Consequently, FITI is now improving its relationship with saw millers and other wood-working industry. FITI has moderately equipped dormitories and classrooms with a capacity of 90 students, stationery sawmill, wood working workshop, saw shop and West Kilimanjaro Stationery sawmill. Also FITI suffers from cronic shortage of financing.

Currently, the extension services in forestry are centralized in one section at the FBD. Due to lack of an effective field-level organisation the extension services are very limited by scope and effectiveness

Awareness creation is crucial in ensuring Sustainable Forest Management (SFM) in a participatory manner. Following the drastic reforms in the forest management introduced through the National Forest Policy, Public Service Reforms and Local Government Reforms, emphasis should be in strengthening extension services to all stakeholders to ensure effective involvement. The focus is in creating awareness of the National Forest Policy; promoting gender sensitive aspects and women involvement in forest management and promoting the application of indigenous knowledge on management and uses of forest resources at local level under various arrangements including CBFM.

4. ONGOING EFFORTS FOR SECTORAL DEVELOPMENT AND LESSONS LEARNED

4.1 Tanzania Forest Action Plan (TFAP)

The government of Tanzania developed and approved the Tanzania Forest Action Plan TFAP in 1989 and its implementation started in 1990. The overriding strategic goal of TFAP was to enhance forestry's contribution to sustainable land resources. Since then, the level of forestry activities has increased significantly initially with more than 120 forestry-related projects either being implemented or under planning. The main objectives were: (i) to review past policies and development efforts, (ii) to formulate a long-term development strategy and to establish targets; (iii) to prepare an Action Plan with development and institutional support programmes; and (iv) to present project profiles for implementation of the plan.

Under TFAP, eight development programmes related to Land Husbandry, Community and Farm Forestry, Forest Management, Wildlife Management, Ecosystems Conservation, Bioenergy, Forest Industries and Beekeeping and four institutional support programmes were developed. Major successes of the plan were the recognition of the role of forests in the socio-economic development, formulation and review of the main land use policies and legislation and the recognition of the role of other stakeholders in the sustainable management of forest resources.

The Plan was however unable to redress the issue of over dependence on external financing in forestry development, where donor input to the government forestry budget, especially for the development projects and related activities remained as high as 68% of the total sectoral funding. The reviewed forest policy focuses on reversing the trend through involvement of other stakeholders mainly the private sector and local communities.

4.2 National Forest Policy

The operational forest policy, which was approved in 1998 vests the responsibility of managing the forest resources sustainably under the forest sector in collaboration with key stakeholders. The policy emphasises on participatory gender balanced management and decentralization. These are radical changes from the earlier forest policy and legislation that focused on preservation and control under centralized forest management. This turn about is a result of the first TFAP objective in terms of reviewing policies and their respective instruments. The overall goal and objectives, which are also NFP objectives are presented in Box 4.1 and a summary of Policy Statements is presented in Annex 3.

Box 4.1 Forest Policy Goal and Objectives

The overall goal:

“to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations”.

The objectives are:

- Ensured sustainable supply of forest products and services by maintaining sufficient forest area under effective management;
- Increased employment and foreign exchange earnings through sustainable forest-based industrial development and trade;
- Ensured ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility; and
- Enhanced national capacity to manage and develop the forest sector in collaboration with other stakeholders.

4.3 Institutional, Legal and Financial Instruments

4.3.1 Forest Act

A Forest Bill, which is the revision of the outdated Forests Ordinance CAP 389 of 1957, is being developed to correspond with the National Forest Policy. The Bill seeks to address the inadequacies of the Forests Ordinance CAP 389 and provide the appropriate legal framework to enable the policy to be implemented effectively. The revised Forest Act bestows management under respective instruments including:

- The National Forest Programme,
- National Forestry Advisory Committee,
- Management plans for national and local authority, community, village and private forests, collaborative forest management such as joint management agreements,
- By-laws, Environmental Impact Assessment in forestry development
- Criteria and Indicators for sustainable forest resources management.

The roles of different stakeholders are recognized and supported including allocation of management responsibilities, rights and duties. The compliance with international initiatives towards sustainable forest management, and the implementation of international conventions is given priority. Development of the Forest Act also recognizes related legislations, which include, the Land Act and the Village Land Act, both enacted in 1999 and other pieces of legislation supporting the management of natural resources and environmental conservation.

4.3.2 Forest Administration Set-up

The forest administration currently falls under two authorities namely; (i) the central government, and (ii) local governments and regional administration. Much of the management is however still under the central government. The ongoing administrative and sectoral reforms aim to improve the institutional set-up focusing on

decentralization and devolution of forest management to local governments, communities and the private sector. Currently there are studies being carried out to elaborate on the establishment of executive agency(ies) that will take up management responsibilities for forest under the central government. Under the reformed government system, the functions of the Central Government institutions are restricted to facilitation of the local government authorities in their responsibility to provide services. The regional secretariats are to provide backstopping to local government authorities and other stakeholders. They are expected to develop inter-sectoral collaboration and coordination to improve rational resource utilization and increase efficiency.

4.3.3 Training and Extension Services

As regards training in Forestry and forest based activities, during 1997-2001 Tanzania National Project under “Improvement and Strengthening of the Forestry Colleges in the SADC Region” has contributed to developing operational and financial sustainability of FTI and FITI under a joint business manage. The Project has addressed the Forest Policy priorities by strengthening training institutions, by increasing resources, reviewing curricula and promoting SADC regional and international cooperation. However, it has been become evident that curricula development and training in the colleges does not yet take adequately into account the emerging needs of communities and employees, though expressed by the National Forest Policy. Tutors are still too much plantation management oriented and awareness on Community-Based Forest Mangement and Joint Forest Management is weak. There is also inadequate awareness on the facilitation roles of extension staff and relationships between forest extension service and communities are poor. Altogether, the forestry extension services in Tanzania are currently very poorly staffed and fragmented. Consequently, sufficient financial and human resources would be needed to strengthen the existing forestry training institutions and extension services. Also new innovative ways are needed to ensure increased awareness and skills amongst the people on conservation, management and utilisation of forest resources.

4.3.4 Forest Financing and Inputs

Financing of the forest sector is mainly from three sources namely (i) government budget through the Treasury, which covers the FBD personnel emoluments, (ii) retained income from the forest revenues under its jurisdiction (56% of the revenue collected), and (iii) donors’ support to specific projects.

Most of the programmes in the sector are implemented with external support. Donor agencies and other development partners through technical cooperation arrangements provide some 68% of the sectoral financing. Only a small proportion of forest sector projects are implemented with resources from NGOs, local communities and the private sector. This dependence is a major threat to the sustainability of projects and the sector as a whole. The intention is to redress the skewed financing structure by improving the internal sources of funding through improvement in revenue collection.

The establishment of retention scheme has been a major achievement for the forest sector development that has enabled a gradual development of sectoral self-financing

and provided for a strong incentive for FBD to improve both its own administration and the management of the forest resources. This has enabled FBD to provide funding for forest management in the regions and districts, to improve FBD's administration, and supporting field projects and management of both natural and plantation forests. The retention funds for the period 1995 to 2000 is provided in Table 4.1

Table 4.1 Forest Retention Funds from 1995 to 2000

Year	Revenue collected (Tshs mill.)	Amount retained by MNRT ³ (Tshs mill.)
1995/96	822.878	382.000
1996/97	961.938	610.103
1997/98	1,528.270	935.610
1998/99	1,733.540	1,213.478
1999/2000	2,049.448	1,434.613

Source: MNRT, 2000

4.3.5 Summary of Key Instruments for Sectoral Development

Different legal, institutional, financial and informational instruments/tools currently in use to make a radical change towards sustainable forest management (SFM) in Tanzania are given in given in Table 4.2.

Table 4.2 Key Instruments to Reverse Forest Encroachment and Degradation

Key instruments/tools to be used in NFP implementation	Planning, piloting/ implementation going On	Legal and other mechanisms in place or forthcoming
Identification of key stakeholders	Yes	New Forest Act
Clear and secure land tenure in place Clear definition of ownership	Yes Yes	Operationalization of Land & Village Land Acts
Clear Definition of Land Use	Yes	Much further participatory LUP required
Equitable benefit and cost (responsibility) sharing in forestry operations	Weak; some piloting	New Forest Act; further work needed
Self-financing forestry operations (revenue collection)	Very Weak; some piloting	Partly; major efforts required
Decentralization of authority in connection with local Government reform	Started; weak forestry linkages	LGR takes several years to cover all districts
Reform of government or statutory Agencies	Planning stage	Major efforts required

³ NB: Not all the revenue retained by MNRT is allocated to forestry. Details are explained in a separate study on Financing in Forestry

Key instruments/tools to be used in NFP implementation	Planning, piloting/ implementation going On	Legal and other mechanisms in place or forthcoming
Clear definition of authority of all stakeholders at all Levels	Definition in progress	Major efforts required
Devolution of benefits and responsibilities in forest management through participatory forest management	Yes	New Forest Act; Best practices exist; draft guidelines
Private sector involvement in forest resource management	Weak	Major efforts required
Establishment of cross-sectoral policy and legislative linkages	Weak	Mechanisms to be established; major efforts required
Awareness creation and extension (facilitation) among key stakeholders	Weak	Mechanisms to be put in place; innovative thinking required
Harvesting, processing and utilization of forest produce in technologically sound way	Weak	Better instruments required & major efforts
Research and training	Moderate	Streamlining based on NAFORM; major efforts required
Data & information and management plans	Weak	Mechanisms to be put in place; major efforts required
Environmental Impact Assessment - EIA	Planning stage	Establishment of an instrument & piloting

4.4 Projects and Programmes

The forest sector, in pursuit to improve management of forest resources in the country has attempted to implement several strategies including development of decentralized programmes for village or community forestry as well as initiating national ones. Of recent, emphasis has been in undertaking integrated management through interdisciplinary approaches in forest resources management and gender balanced participation of stakeholders in planning, implementation and monitoring of such plans. As of 2000, programmes and projects related to forestry under implementation amounted to 45 drawing resources and participation from local governments, central government, NGOs, the private sector and development partners. This is a big reduction from over 120 projects developed under various programmes during and after the formulation of TFAP, reflecting a consolidation and prioritization in consideration of existing capacity and resources. The programmes address virtually all the policy areas from ecosystems conservation, forestland management to institutions and human resources development. However, the approaches are sporadic and limited in coverage in terms of area and extent of the respective issues. The majority of the projects are also planned to end in the next two to three years.

The focus in NFP is on developing sector programme approach. This is intended to improve the sectoral management through enhanced capacity and rationalization of resource use and doing away with piecemeal management interventions. This is based on the past experiences where competition for resources, both human and financial, dominated in the project approach. Ongoing and pipeline projects are provided in Annex 6.

4.5 Current Undertakings of Best Forest Management Practices

Forest management in Tanzania has adopted a number of approaches ranging from conventional industrial forest plantations management and preservation of natural protected forests to community and collaborative forest management. Conventional approach has led to degradation of forests in light of the limited government resources to effectively control the large reserved and public forests. In addition, this has limited opportunities for other stakeholders to take part in their management. The failures and the recognition of the rights of communities and other partners in forest resources management has resulted in the introduction of a variety of management options including Community Based Forest Management (CBFM) and Joint Forest Management (JFM). Such approaches have been planned either in purely forestry or integrated projects and programmes. This has arisen through the decentralization and empowerment processes which provide for decision making and planning at local levels, which has not only increased local ownership but has also made better use of the traditional indigenous knowledge and local institutions.

Some pilot projects have either complemented the present management systems or introduced experiences gathered elsewhere. These include CBFM and JFM in local and central government forests, respectively. Decentralization and integration into the local and district level administration has been a key concept in most of the soil conservation, rehabilitation and agroforestry projects. These provide experiences in forestry practices with varying levels of decentralization, stakeholders' participation and intersectoral linkages.

The management strategy for community forests adopts bottom up planning approaches, with the aim of redressing the poor management of the forests, which resulted into degradation of the forest activities by linking forest management objectives to the perceived needs of the rural poor. The districts are giving support to mainstreaming project activities and management into their administration. They also recognize and approve by-laws and conservation rules that villagers have put in place. In terms of participation, these programmes/projects have succeeded to work with the local community groups e.g. women, youth, and village government at village and sub-village levels. The bottom up planning has penetrated district and regional planning sections in different sectors where people are encouraged to improve their living standards through self-supporting projects. The approach aims at providing sustainability as its implementation has laid down the foundation for the villagers to assume their responsibilities in sustainable forest management. In the course of their implementation, there has been a sense of ownership by local communities and private sector that are targeted as the future managers of forest resources.

Lessons learned and best practices from various programmes/projects, which need to be considered in the implementation of the National Forest Programme, revolve around the contribution to poverty alleviation, ownership and user rights, institutional set up, benefit and responsibility sharing, accountability and transparency. The key lessons learned from the pilot programmes are summarized in Box 4.2.

Box 4.2 Best Practices and Lessons from On-going Pilot Forestry Projects/Programmes

The need for all relevant stakeholders' consensus on the norms

- It is important to ensure that the right institutions at local level are in place for collaborative management arrangements. Also all relevant stakeholders have to participate in designing the rules, regulations and norms, which finally govern the daily running of such local institutions. The recognition that the Government is poorly equipped to manage forest resources at the local level, and that local people often have both sound technical knowledge and a range of institutional structures for forest management, need be considered. The existing village assemblies and village councils by statute provide the necessary organizational framework that can be utilized in the implementation of forest management at local level.

The need for decentralization and of strengthening local government machinery

- Projects, which have been decentralized and mainstreamed as part of the district administration, have shown the highest chance of sustainability as they were accepted and implemented at local level. Those projects, which facilitate the implementation of activities primarily through councils and communities themselves, are strengthening local government. Local participation (a “bottom-up paradigm of forest development) has been adopted in forest management without any meaningful reforms of the power relations between the Central Government and local communities.
- Participation is now geared towards facilitation of management that involves behavioural and attitudes change.

Farm forestry as a vital option for forest management and sound technology use

- Soil conservation and agro-forestry projects have focused more on the promotion of technologies without sufficiently considering farmers' needs and interests in relation to a particular technology. Equally, most of the projects have failed to conceptualize the farmer as the manager and the decision maker in his/her farming enterprise.

Allocation of adequate resources to the local levels

- Pilot projects and programmes have tended to retain financial powers while decentralizing planning and implementation that limits transparency and authority on resource allocations.

Establishment of clearly-defined forest land and tenure rights

- Traditionally, development of forest resources has been dominated by the Central and local Governments and parastatal organizations. The local communities are mainly involved in some limited utilization of forest products and services, such as fuelwood, construction timber, medicinal plants and fodder. Effective participation in forest management requires establishment of clearly defined tenure rights for the communities and the private sector.

5. KEY ISSUES FROM NFP CONSULTATIVE PROCESS AND UNDERLYING CAUSES

5.1 Issues at the Local and National level

The key issues learned from the NFP consultative process regarding sectoral management point that there are deficiencies in the legal and regulatory framework and functioning institutional set-up with clear mandates between the two line ministries i.e. MNRT and PO- RALG and lack of cross-sectoral linkages. Redefining power relations between the local people and Central and Local Governments and devolution of power to the communities through existing organizational structures, such as the Village Assembly and the Village Council were considered also as important challenges. Shortage of human, financial and other resources is also a key problem in the local governments as well as central government administration. Unclear forestland tenure and ambiguous property rights is an issue that hinders proper management of various forest types in terms of motivation for investment in the forest development. Resource availability and incentive structure in terms of cost and benefit sharing under collaborative management for different stakeholders as well as developing forestry self-financing is an issue needing attention. Box 5.1 presents a summary of issues at local and national levels.

Box 5.1 Summary of Major Issues Brought Up at Local and National Consultations for Effective Decentralized Forest Management

Clarifying the link between MNRT, PO-RALG, Local Governments and communities

- Weak link between the Central Government and the Local Government and undefined rights and responsibilities. The ongoing local government reforms ought to provide for clear roles and responsibilities including coordination and networking.
- Poor institutional set-up and unclear mandates between MNRT and PO-RALG. Redefining power relations between the local people, local governments and the central government.

Institutions, human resources and administrative set up

- Weak district level administrative machinery and cross-sectoral cooperation at district and local level.
- Forestry not prioritised on political agenda mainly at local governments and communities level.
- Absence of modalities of devolving power to local people.
- Local level institutions like Village Natural Resources/Environment Committees not legally established and recognized at all levels.
- Weak capacity at the decentralized levels for successful implementation of local level programmes.
- Inadequate human resources at local and central government levels.
- Poor cross-sectoral consultation and coordination in planning and management of natural resources.

Mechanisms for cost and benefit sharing under collaborative management of natural resources

- Absence of appropriate frameworks for incentives, rights and responsibilities of various stakeholders in designing and implementation of decentralized forest management

system. Costs and benefit sharing under collaborative management of forest resources are not legally defined.

- Weak stakeholder consultations and poor participation and partnerships development in the management.

Sustainability of financial resources

- Inadequate financial resources for effective forest management with weak self-financing mechanisms.
- Lack of financing and poor revenue collection.

Forests and ecosystems management planning

- Lack of management plans for various forest types under private, local and central governments.

Forestry industries development

- Poor and inappropriate technology in wood harvesting, processing.
- Poor and inappropriate technology in wood harvesting and processing.
- Inadequate recognition of NWFPs in income generation and food security.

5.2 Underlying Causes of Forest Encroachment and Degradation

It was estimated by the Center for Energy, Environment, Science and Technology CEEST (1994) that about 88,600 ha of forestland was converted to permanent cropland and pasture in 1990. De Paw (1995) estimated that the loss of forestland is 130,000 ha per year, of which 60% is accounted for agricultural expansion and the remainder is attributed to woodfuel demand, timber extraction and wild/man-made fires. Also such estimates as loss of up to 500,000 ha of forestlands per annum have been presented.

Biodiversity and other amenity values such as water are also increasingly under serious threat due to growing encroachment on forestlands, over harvesting and fragmentation of forestlands by other developments like human settlements, railway lines, roadways, etc.

The major underlying causes of encroachment and forest degradation are summarized in Box 5.1.

Box 5.2 Underlying Causes of Encroachment and Degradation in Forest Reserves and General Land

Adjacent Communities and Non-Community Members

- Poverty, low agricultural productivity and lack of alternative income sources: forest clearance for shifting cultivation
- Pastoralism: seasonal grazing in forests
- Poverty: needs for supporting the fulfillment of every day's needs, primarily on a subsistence basis (firewood, food security, NWFP, beekeeping, hunting, fishing)
- Needs for cash income-generation using forest produce as a help (charcoal, firewood, poles, pitsawing, tobacco-curing, other crop processing)

Wood-Based Industries and Other Related Businesses

- Need for income and profits from wood-based industries (large and small-scale wood-based industries, including such activities as charcoal making, pitsawing, furniture making, if not conducted sustainably)
- Forest resource use is very inefficient, in terms of technology used in harvesting and processing of wood as well as in different end uses (firewood utilization for cooking, etc.)

Other Industries and Businesses

- Clearing of forestland for other land use purposes and need to use wood for supporting industrial activities (e.g. agribusiness, mining, tobacco industry).

Impact of Refugees

- Refugees from neighboring countries (e.g. Rwanda, Burundi, Democratic Republic of Congo; altogether some 700,000).

Climatic Conditions and Natural/Man-made Disasters

- Man-made and wildfires, insect attacks, land slides, flood, changes in climatic conditions, etc.

5.3.1 Agricultural Expansion

Small-scale subsistence farming is one of the major threats to forestry, mainly due to the sheer number of farmers/people involved and the area they clear. From 1982 to 1990 the land under subsistence farming has increased by one third, which correlates to the increasing number of smallholders. Smallholders obtain their land mostly by clearing forestland through shifting cultivation. Area under short fallow more than doubled which also indicated the increase of the number of smallholder producers who practice shifting cultivation. Area under long fallow decreased by 10% and was invaded by smallholders. Area under large-scale farming diminished by 11% due to abandonment during nationalization (See Table 5.1). Increased intensity of farming on already existing fields could reduce pressure over forestland by increasing yield of agricultural crops.

Table 5.1 Agricultural Land Use Changes from 1982 to 1990

Cultivation type/farming systems	Area in 1 000 ha 1982	Area in 1 000 ha 1990	Changes in %
Subsistence farming	3,047	4,186	+ 37.4
Large scale farms	1,151	1,020	- 11.4
Area under short fallow	402	922	+129.4
Area under long fallow	22,116	20,453	- 7.5
Total	26,716	26,581	+ 0.5

Source: CEEST, 1994

5.3.2 Poverty and Lack of Alternative Income Sources

The study by Monela et al. (1997) analyzed the possibilities for sustainable land use management at farm level in order to preserve the tropical rainforest in the Nguru mountains in Morogoro region. Deforestation was analyzed as a consequence of population growth, working capital availability, crop prices, fertilizer costs and the farmer's ability to bear risk. The study showed that existing farming systems can sustain the present population growth rate of 3.7% per annum for the next 10 to 15 years. Forest encroachment for agriculture is the major cause of deforestation. The

key underlying causes for encroachment are declining crop productivity and income and growing food demand due to increasing population.

In the short term, agricultural intensification must address decline in crop productivity, which seems to be one main cause of low income. Also measures aimed at conserving the soil and providing fertility and an integrated land use approach are essential to curb soil degradation. In the longer term, agricultural improvements must focus on raising physical productivity of land and labour through appropriate technology.

Improving the living conditions of the people, in other words reducing poverty, is the key issue to alleviate land use problems that enhance deforestation pressure. One way to do this is to increase income from activities outside agriculture. Extra income can be generated through: casual employment; small-scale enterprises from non-timber forest products such as basket and mat weaving; services such as shop keeping, transport and tourism. For example, the species richness of the tropical rainforests gives possibility for no timber commercial use, such as ecotourism.

Another study by Monela et al (2000) concluded that sampled households in Dodoma and Morogoro regions derived more than 50% of their cash income from sale of forest products, such as charcoal, honey, wild fruits and firewood, with the peri-urban households deriving almost 70% of their cash income from the woodlands. However, not many households have the capacity to take advantage of forest-based income generating activities. The results indicated that income-generation from forests is supplementing the farm income. Since early 1990s there has been reduction in Government spending in terms of extension services and subsidies on farm inputs. Increasing agricultural production costs in relation to product prices and increasing living costs in general have pushed people to exploit more intensely forests, particularly on the general lands, to generate cash income.

5.3.3 Fuelwood and Charcoal Production and Pricing

The collectors of woodfuel for charcoal production contribute to deforestation substantially. The main source of fuelwood for charcoal production in Tanzania is miombo woodlands. With few exceptions, most of the woodfuel used in the country is collected free from natural forests or farmlands. Fuelwood and charcoal production and selling provides an alternative source of income besides agriculture to rural and urban people in all regions of Tanzania.

A survey by IUCN (2000) showed that selling prices for these products is based on labour costs for harvesting, transporting and paying of business license to local authorities. For women harvesting fuelwood free from natural forests, transporting it to the market and selling it on retail price, earned about Tshs 18,000 per month, excluding labour cost which was estimated to be Tshs. 1,000 per day used for harvesting and transporting fuelwood. For charcoal producers the average monthly profit (excluding labour costs) was Tshs 62,000 respectively. Large-scale charcoal production earned a gross profit of about Tshs 600 per bag, at wholesale market, after deducting purchasing and transportation costs and the Government charge of Tshs 400 per bag.

Majority of consumers purchasing fuelwood and charcoal have low income and consider the prices of charcoal in Dar es Salaam high. If the price of royalty of wood harvested for charcoal production would be included in pricing, the current price of charcoal and fuelwood would double. Higher prices would encourage wider use of efficient woodfuel utilization methods to reduce consumption. In addition, tree growing in private woodlots and on farmlands would become more profitable and the Government could increase the revenue from fuelwood harvesting and charcoal production.

5.3.4 Impact of Refugees

There are currently about 700 000 refugees in Tanzania, mostly from Burundi, Democratic Republic of Congo and Rwanda. The recent influx of refugees into the country especially in Kigoma and Kagera regions has had severe environmental consequences; *inter alia*, rapid depletion of forests and wildlife, destruction of water resources and damages to croplands. An average of 17 000 to 20 000 ha are estimated to have been depleted during 1994-1996 (TFCMP, 2001).

5.3.5 Forest Fires

Fire has become a serious problem in Tanzanian forestry. While fire is a part of the ecosystem in miombo woodlands, it has become a common phenomenon also in plantations and even in catchment forests. The fires in plantation forests have caused a financial loss of Tshs 8.8 billion in 1990-2000 (excluding Sao Hill). The average forest plantation area burnt annually is 2,466 ha and 40% of which is from Sao Hill, where the fires are frequent (TFCMP, 2001).

In catchment forests most incidences have taken place in the Eastern Arch Mountains with Kilimanjaro, Uluguru and Meru having the most frequent incidences. In addition to causing losses to timber and biodiversity, the catchment values are seriously reduced resulting in hydrological imbalance, which is reflected in reduced water in rivers and streams during the dry seasons and floods during the rainy seasons.

For example, from 1995 to 2000 the major causes of the reported fire incidences in Morogoro were hunters, charcoal makers and farm preparation. On the other hand, the villagers were also the major fire fighters.

6. STAKEHOLDERS, ROLES AND PARTICIPATION

6.1 The Need to Involve All Stakeholders

The government made a decision in 1996/97 to withdraw from involvement in direct production activities with emphasis placed on decentralization of authority to the local level and promotion of interactive gender balanced community participation in the management of forest resources. As per Government Vision 2025, the forest sector's contribution to the overall national development and poverty alleviation is guided by the main strategies that include:

- decentralization of management of natural resources
- privatization of management functions
- creating enabling environment for participation of relevant stakeholders
- gender aspects especially involvement of women in decision making and implementation of programmes
- integrated resources planning

Gender balanced participation in forest management has thus come as a result of recognition of the importance of forest resources as suppliers of subsistence needs for communities and implementation of the national directions. Other driving forces include political pressures, austerity measures and development of sustainable forest management as summarized in Box 6.1.

Box 6.1 Major Reasons for Stakeholders' Involvement

Subsistence: Most rural communities depend on forest resources for their subsistence including firewood, fodder, food, timber, medicinal products and many other non-wood forest products. Their involvement would ensure continued supply of products and services. Experiences show that SFM has failed where forest dependent communities were excluded and lacked recognition of their rights to the resource.

Hiving off responsibilities: Tanzanian government has been under financial pressure to downsize and to retain control of only basic functions such as policy-making, national planning, legislation, law enforcement and monitoring. This has resulted in the delegation of other functions to local governments, private sector entities and communities.

Financial sustainability: Most forest programmes are dependent on donor financing as a result of low internal revenue. Transfer of some of these responsibilities to other partners is taken as a strategy to spread the costs. Devising forest management interventions in a participatory manner economizes on monitoring and enforcement costs and gives the private sector, particularly within forest development, a major role in improving production through efficient technologies. The private sector and the communities offer an opportunity for strengthened forest management and sustainability of the resource base.

Political pressure: An increasing number of local political and administrative powers are emerging that are less dependent on central control. These are demanding and taking a much greater role in decision-making on the use of locally available forest resources in their socio-economic development. The government has recognized these interests and rights and has selected an environment to allow other stakeholders to participate in forest management.

6.2 Stakeholders' Roles and Responsibilities in Forest Management

Forest management in Tanzania as indicated in the National Forest Policy draws a number of stakeholders with varying roles, responsibilities and interests. One group includes those who consciously and directly manipulate the forests for their livelihood and economic returns. These include the private sector, parastatal and government forest authorities, local communities, and individuals at household level. Another group covers those interested but not gaining direct returns and includes non-governmental organizations (NGOs), international financial institutions like the World Bank, UN agencies, donors and the international community. All these have had major influences on policies, institutions and technology related to management of forests.

Subsequently, their roles and responsibilities range from policy formulation to planning of household level utilization of forest products including direct management, through planning, implementation and resources acquisition. The roles and responsibilities by the main groups of stakeholders are summarized in Table 6.1

Table 6.1 Roles and Responsibilities by Main Stakeholders in Forest Management

Responsibility	Responsible Stakeholder						
	Central government institutions	Local Government	Other Government Institutions	Local Communities	NGOs	Private sector/ Executive Agencies	International Community
Normative activities							
Policy and Legislation Formulation							
Law enforcement							
Revenue collection							
Sectoral planning and budgeting							
Management/Operative Activities							
Management of central government forest reserves							
Management of strategic forest reserves							
Management of forest plantations							
Management of local government forest reserves							
Management of village forest reserves							
Facilitation and Monitoring							
Human resources development (training and education, manpower planning, curricula development)							
Stakeholder coordination/ international cooperation							
Monitoring and evaluation							
Research and its coordination							
Information systems							
Extension services							
Sector financing							

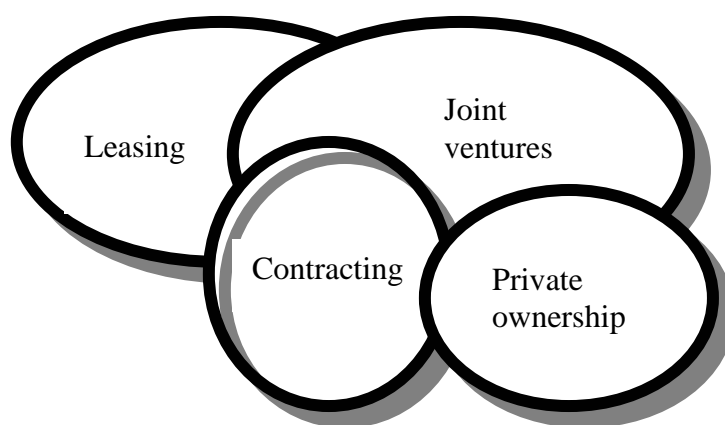
Traditionally, all aspects of forest management in Tanzania were the domains of forest authorities, mainly the central government. Following the recognition of the roles other partners could play in the management, the outlook is more on decentralized management where local governments, communities and the private sector play a greater role in the actual management whereas the central government concentrates on facilitation and enabling functions. This involves providing access to and taking part in planning and management of forest resources.

Management of central and local government forest reserves will now involve the central forestry authorities, local government, communities and the private sector in terms of participatory gender sensitive management and leaseholds. Management of forest plantations will be commercialised and undertaken solely or in collaboration with specialized executive agencies, local governments and the private sector under leaseholds, concessions and pure private plantations. The ongoing Local Government reforms and Institutional Change Studies carried out under FBD are instrumental in providing operational modalities.

Forest development in private and community forests is now emphasized and will involve forestry on leasehold and village lands including farms, natural forest on leasehold lands and traditional forest areas/trees. Main managers will be local communities.

Forests on general lands, which have been subject to conversion to other land uses such as shifting cultivation and grazing because of absence of security of tenure and formal user rights, will now be placed under the management of local governments, villages and private individuals. Figure 6.1 provides involvement arrangement in forest management.

Figure 6.1 Stakeholders Involvement Arrangements in Natural and Plantation Forest Management.



6.3 Mechanisms for Institutionalization of Stakeholders' Participation

Effective collaboration and participation of stakeholders having varying interests and roles require formal institutional arrangements and mechanisms at different levels of forest management. These establishments are in the form of policy and legal frameworks; capacity building and empowerment of local governments; cost and benefit sharing and security of tenure.

6.3.1 Decentralization and Devolution of Forest Management

The government recognizes local governments and communities as key partners in the management of forests. The rationale for decentralization is that more efficient grassroots management on forestry will result when decisions are taken at local levels and local solutions can be developed while enhancing accountability for both resources and results. In terms of forest management therefore, decentralization entails political delegation, involvement of the private sector, inter-sectoral coordination and development of appropriate legal framework. The transfer of management or establishment of collaborative mechanisms have necessitated a number of reforms including the Civil Service and Public Service Reform as well as Local governments' reforms all meant to revisit the public administration in relation to the roles and functions of the government. The reform will provide for organizational and efficiency reviews to improve performance, transfer of non-core functions of government to private sector, and formulation of executive agencies with significant autonomy.

Devolving management responsibilities to districts will reduce substantially management resources initially required for activities under the direct management of FBD. On the other hand, financing of forest management under local governments will increase as a result of management responsibilities relocated to the communities and local government. These will require expanding the local governments revenue base without necessarily creating unsustainable utilization of the forest resources. The parallel administrative set up requires effective coordination to ensure sustainable management of forest through reduction of overlaps and efficient utilization of resources

6.3.2 Establishment of Framework for Integrated and Holistic Planning

Past planning of forest management processes had inbuilt deficiencies in comprehensive mechanisms. Most initiatives have remained to be essentially project-based with limited effectiveness. Examples include JFM where only communities were taken as "partners" and local governments being co-opted in the management. In the decentralized and redefined roles, the planning process should go beyond communities-forestry partnership. Issues that need be looked into are those related to sustainability in terms of replicability of pilot interventions, noting that this approach is mainly state driven and project oriented. It would seem logical that the right mechanism should not be predetermined by state agencies, but left to develop in the course of interactive consultation among the local authorities and communities. A clear and collaborative management planning need be developed with transparent

mechanisms for interplay between beneficiaries. This will increase cost-effectiveness and sustained interventions.

Sustainable forest management programmes can be developed with involvement and compromise of those having a stake. This means therefore that all national sector targets have to be carefully derived at local government level. These targets have to be framed in the district, ward, and village plans. For practical purposes therefore, the Planning Commission through the MRALG has to issue a framework, which should be the basis for such sector coordination at local government levels

6.3.3 Cross-sectoral Coordination Framework

Comprehensive coordination of management interventions to accommodate the varying roles and interests is imperative. A more inter-institutional collaboration in planning, management and monitoring is vital and more so at local levels to avoid designing interventions that are abstract and not a priority to beneficiaries. Also it has been evident that degradation of the forest is a result of competing demands for various land uses such as agricultural land, mining, and settlement. As the National Forest Programme advances in preparation, clear modalities for inter-institutional collaboration in all levels need be well entrenched in the process.

6.3.4 Redefining the Legal Framework and Management Guidelines

Restrictive forest laws have been the main obstacles in sustainable community based forest management that is emphasized now. For instance, pilot CBFM initiatives are not backed by formal legal regimes. Tanzanian Forest Ordinance (CAP 389 of 1957) largely focused on protection of forest reserves. As emphasis is being placed on wanting communities to take an active role, the laws should take precedence in defending and facilitating this process. Joint forest management which for instance means involving local communities or non-governmental organizations in the management and conservation of forests and forest land, requires also that appropriate user rights as incentives are in place. Implications include development of the necessary security for long-term rights to the forests ranging from having the respective instruments such as by-laws, guidelines, management agreements, user rights and benefit sharing mechanisms.

The Local Governments' reforms are meant to increase efficiency in services delivery. The provisions under these reforms and respective instruments pave the way for empowerment of local governments to develop the necessary capacity for effective resources management including forest development. For the forest sector, the necessary empowerment instruments include enactment of Forest Legislation that recognize the roles and benefits of the local governments and communities. Participatory and gender sensitive management guidelines will provide for empowerment of the communities and serve the interests of all sections including women, youth and other disadvantaged groups in the society.

6.3.5 Establishment of Roles, Interests and Benefits

The presence of a number of stakeholders at national, local government and community levels provides a range of conflicting interests, differing roles and benefits.

Roles range from management for specific products or areas in the ecosystem such as biodiversity conservation and sustainable management of strategic forests for local and global benefits to influencing institutions and resources mobilization. Benefits are focused on both immediate incomes as well as long-term returns accruing from such management interventions. Experiences show higher interest in gender balanced participation and commitment in forest management where benefits are obvious and commensurate with the effort.

6.3.6 Capacity Building

Capacity in terms of technical knowledge and human resources is limited in all levels (central, local governments and communities). This is even more critical in light of the shift from conventional forest plantations management and natural forest protection to community based woodlands management for household subsistence, small-scale wood and non-wood production and the role of forests in poverty alleviation. The challenge is to avail the requisite human resources noting that training at technical level has declined since 1994 following the government's decision to downsize its workforce. This seemingly contradictory decision calls for alternative modalities for capacity development at local governments' and communities' levels. Options here include providing specialized modular training for local government personnel suiting management requirements in the respective district. These in turn would conduct training for communities and groups involved in forest resources management through creation of public awareness, training and extension services. The ongoing curricula review in the forestry training institutions should address this requirement.

The need for gender proportionate staff capacity building will require additional costs to cover both the necessary staffing levels as well as training. As the central sectors remain mandated to this function, it entails increasing budgetary expenditures for capacity building at local governments level.

At community level, increased competence in management of both natural and plantation forests is needed. This will involve developing capacity to plan, implement and monitor initiatives at local level to ensure best returns without compromising forest sustainability. In this aspect, the central government forest authority needs to provide supportive mechanisms like the removal of permit procedures for timbers in community lands, increasing the share of benefits accruing from JFM and other collaborative management as well as improving extension services. The involvement of the private sector and civic society organization such as NGOs, CBOs and other groups in the delivery of these services should be addressed at local levels.

6.3.7 Financing

Financing of forest management by local governments need to be addressed. The local governments revenue base need to be expanded without unsustainable utilization of the forest resources. Also the possibilities to save in such costs as forest management and land use planning should be investigated to improve financial sustainability of CBFM and JFM.

6.3.8 Consideration of gender aspects

Gender aspects are crucial issues in considering gender sensitive participatory management of forest resources. The roles and benefits differ across the community. Some studies indicate added responsibilities for women when involved in forest management while others reflect on reduction of social conflicts. This observation signals a need for cautiousness in planning women's participation in forests management and requires establishing their consent instead of advocating and taking their involvement readiness for granted. In-depth participatory analysis is crucial in decentralized forest management to ascertain consideration of all sections of the community including women, youth and other disadvantaged groups.

Although it is considered rational to increase the involvement of all men and women in managing their environment and natural resources, outdated cultural and traditional impulses prevent the enhanced participation of women at par with men. Moreover, although common sense advocates for increased and unwavering government commitment towards promotion of all stakeholders in ensuring the implementation of forestry and other sectoral policies, objectives, strategies and plans, limited gender awareness and sometimes, sectoral vision limits the inclusion of women. Measures that should be considered in quest to increase women's involvement in the National Forestry Programme should include:

- Ensuring there is gender balanced participation (e.g., acceptable proportions of men and women) in all forestry and beekeeping activities;
- Empowerment of women in management (e.g., active women involvement in decision making and access to resources), of forestry resources at all levels;
- Establishing firm institutional and organizational commitment (e.g., policy statements and planned actions), towards internalization of gender issues in the National Forestry Programme and its activities; and,
- Development of gender integrated forestry and environment management programmes or plans (e.g., gender aspects in all plans and activities), at the district level.

7. DEVELOPMENT PROGRAMMES

7.1 Introduction of Development Programmes

The National Forest Programme (NFP) has four implementation programmes that cover both forest resources management as well as institutional and human resources development aspects. The programmes in the order of their priority are: (i) Forest Resources Conservation and Management programme which aims at promoting stakeholders participation in the management of both natural and plantation forests, giving priority to ecosystems conservation in priority areas, catchment areas as well as utilization of forests and woodlands in a sustainable manner and forest resources information and management planning; (ii) Institutions and Human Resources Development programme which aims at strengthening institutional set up and improving coordination of forest management, establishing sustainable forest sector funding and improvement in research, extension services and capacity building through strengthening human resources; (iii) Legal and Regulatory Framework programme which focuses on the development of regulatory issues ranging from the Forest Act, rules, regulations and guidelines to facilitate among other issues, the operations of the private sector and participatory management and (iv) Forestry Based Industries and Sustainable Livelihoods programme which is designed to enhance forest industry development, largely by promoting private sector investment and improving productivity and efficiency. Also non-wood forest products and services provide good opportunities for rural livelihoods and poverty reduction. The complete Logical Framework Matrices for the respective programmes are presented in Annex 7 to this main document. The general guiding criteria for implementation of SFM are based on the Planning Commission Guidelines (See Box 7.1).

Box 7.1 Criteria for Implementing Sustainable Forest Management (SFM)

When in the future further investments are made into SFM, the following guiding principles and criteria should be used:

Planning Commission Guidelines for Project/Programme Investments

- Reduction of poverty
- Creation of employment
- Environmental aspects
- Human resource development
- Financial sustainability
- Gender aspects (a crosscutting issue)

Reduction of poverty is assessed by measuring how the people are engaged in generating income and sustaining the activities.

Regional Poverty & Welfare Ranking

Categories based on the composite national poverty and welfare indicator:

Lindi, Coast, Dodoma, Kigoma and Kagera are nationally ranked the most deprived. In the next category are: Morogoro, Tanga, Rukwa, Mtwara and Mara. Iringa, Mbeya, Tabora, Singida, Shinyanga, Mwanza and Arusha. Dar es Salaam, Ruvuma and Kilimanjaro are the least deprived according to the Regional Poverty & Welfare Ranking Criteria.

7.2 Programmes Prioritization

In the NFP process, issues analysis and prioritization by key stakeholders in terms of importance for implementation indicated high scores for issues concerning forestry institutions, availability of human resources and forestland and ecosystems management. This implies that these issues are critical for sustainable forest management and should be addressed in the short and medium term sectoral plans. Forest industries and products issues were of medium and low priority since they relied mostly on the private sector and other institutions' initiatives, with government forest sector playing a facilitative role only as summarized in Table 7.1.

Table 7.1 Key Issues by Forest Policy Area

Forest Policy Area	Ranking given out of 100% in each Forest Policy Area		
	High	Medium	Low
Forest Land Management	81	13	6
Ecosystem Conservation and Management	60	33	7
Forest-based Industry and Products	19	50	31
Institutions and Human Resources	90	5	5
ALL ISSUES	64	24	12

7.3 Key Institutions and Stakeholders in NFP Implementation

7.3.1 General Framework for NFP Implementation and Key Stakeholders

In the implementation of the NFP both the central and local levels are needed to maximize the benefits and minimize the costs from forest conservation and management efforts. In the central level the FBD will have the focal role to play in terms of:

- Guiding the implementation of sector specific reforms by providing technical support to local government authorities
- Setting national minimum standards of services and monitoring quality attainment
- Advising on capacity building
- Facilitating dissemination of information in the sectoral reforms.

For the implementation of forest management in forest reserves including plantations and general lands, an Executive Agency/(agencies) will be established at national level. The Executive Agency/agencies to be established under the forest sector will be semi-autonomous body/ies the operations of which are guided by the Executive Agency Act (1997). The proposed structure shows that services will be provided through different Service Sections/Departments such as will be determined in its set

up serving for the plantation and other productive forestry functions, protective functions, community forestry and other services. The operations in the field will be organized based on the results of different feasibility studies and other evaluations currently under formulation under the Tanzania Forest Conservation and Management Project.

In the field level activities, the Local Government Reform Programme provides a framework for organizational arrangements to support and organize conservation and management practices in different areas. Through the integrated efforts of the central and local levels it is gradually possible to turn the geographically and professionally scattered piloting practices to mainstream activities in the whole country. The NFP implementation strategy that focuses on a programme approach provides for institutionalising lessons learned and best practices evolved from many pilot projects and programmes carried out during the last ten years. The programme approach to forest sector planning is advocated to get rid of fragmented, inefficient and financially unsustainable planning and implementation procedures. This will provide for consistent monitoring of forest management in the country based on similar criteria.

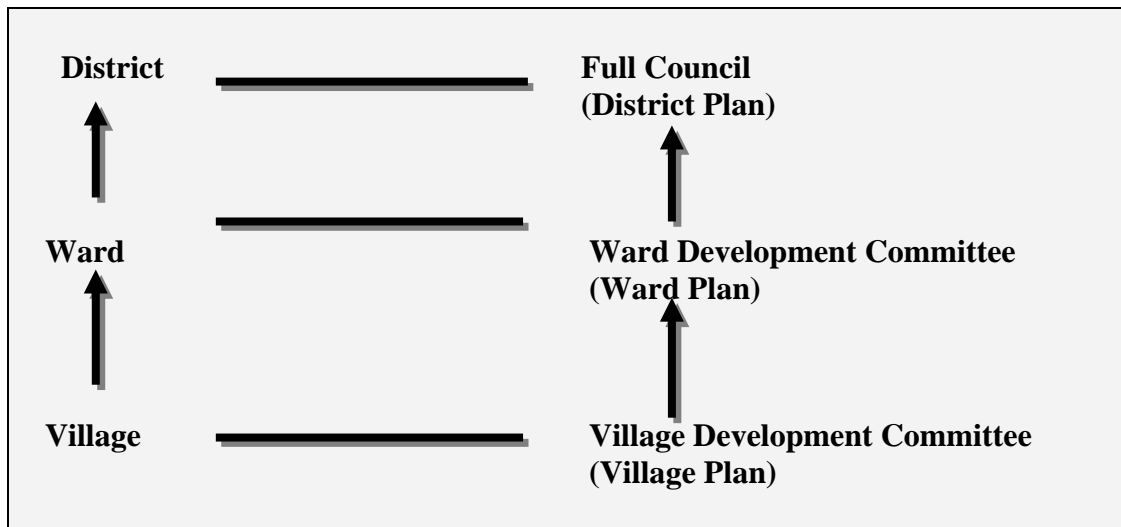
7.3.2 Community-Based Forest Management

Implementation of NFP under community-based forestry will be largely guided at local levels through the PO-RALG. The respective bodies are Regional Administrative Secretariats (RAS), District Councils (DC), Ward Development Committees and Village Governments (See Box 7.2).

Under this organizational structure the different tasks will be, as follows:

- The FBD will have the major role in providing co-financing for planned activities at the local levels, but also for services, such as capacity building, facilitation, monitoring, evaluation etc. to be conducted from the central and regional levels.
- The basket funding will be established under the FBD to serve as a financing mechanism to put into operation the planned activities which are a result of local government planning process (see Box 7.2).
- The Regional Secretariat will form a link between the FBD and the local authorities. Specifically, it will have an advisory and facilitating role in the funding and capacity building process.
- The District Council has a central role to play in facilitating planning and implementation through extension. Furthermore, it provides technical assistance and capacity building, e.g., in tree planting, inventories, forest management planning, demarcation, forest revenue collection etc. The district councils will also mobilise financial resources for implementation of planned activities from different sources, such as communities, the District Full Council, FBD, donors etc. Technical advice and related activities are provided by District Integrated Extension Staff, including the District Forest Officer assisted by other officers on the District and Ward levels.

Box 7.2 Local Government Planning Process



The local communities are the actual decision-makers during the planning and implementation, but need be guided by the District authorities through established guidelines. Decision making power is based on the fact the CBFM areas are commonholds of local communities. In addition, natural resources management is under the Village Government and respective committees in the village level. These bodies are legal entities with respective powers.

7.4 Forest Resources Conservation and Management Programme

7.4.1 Rationale

The Forest Resources Conservation and Management Programme, addresses the degradation of forestland through other land uses and man-made disasters, particularly forest fires, including how to conserve the capacity of the forests as water catchment areas for water supply and production of hydropower and unique biodiversity areas in different eco-zones. While focusing on the management and conservation, the programme addresses the importance of increasing forest production in fulfilling the demand for forest produce such as woodfuel, sawn timber, pulp and paper, NWFP and other forest produce.

7.4.2 Objective and Indicators

The programme objectives and indicators are given in Box 7.3.

Box 7.3 Programme Objective and Indicators

Objective: sustainable supply of forest products and services ensured to meet the needs at the local and national levels

Indicators by 2010:

- effective forest sector contribution to local livelihoods and poverty reduction reflected in plans, programmes and action at the local and national levels
- supply of wood and non-wood forest products from plantations and natural forests meets demand for subsistence and commercial purposes at acceptable levels of cost (monetary and non-monetary)
- forest degradation and loss of forest biodiversity reduced to acceptable levels taking into account the requirements of land for other uses than forestry
- increasing areas of forests are under CBFM, JFM and private ownership
- sufficient areas of key forest ecosystems and habitats under effective protection to ensure survival of unique endemic species
- the production of globally, nationally and locally important environmental services of forests is effectively incorporated into forest conservation and management at all levels, and corresponding cost-sharing mechanisms are in place

7.4.3 Programme Priorities and Criteria for Implementation

Under this programme, all issues were of high priority and interlinked with each other. The two top priority sub-programmes for implementation in this programme are:

- (a) Participatory Forest Resources Management and Gender Aspects
- (b) Forest Biodiversity Conservation and Management

The sub-programmes, however, have vertical complementarity in terms of availability of information on forest resources management planning and making appropriate decisions. Land use planning is key in supporting forest development and provides a basis for appropriate management of different forest types. The Logical Framework Matrix for all sub-programmes is given in Annex 7.

7.4.4 Sub-programmes

7.4.4.1 Participatory Forest Resources Management and Gender Aspects

Gender balanced participation in forest management is emerging as a strong alternative in recognition of forest resources as suppliers of subsistence needs for communities, forest industry and development of sustainable management. Conventional natural forest and plantations management mainly by the state authorities resulted into ineffective management due to the inadequate involvement,

motivation and clear benefits to local communities, private sector and other stakeholders. The existing forest plantations have also been poorly managed. Management alternatives for industrial plantations include commercialization/privatization. The criteria for selection of forests for gender sensitive participatory management are provided in Box 7.4.

Box 7.4 Criteria for Selection of Forests for Participatory Management

<p>Criteria for Reserved Natural Forests and General Lands for CBFM/JFM</p> <ul style="list-style-type: none"> • Planning Commission Guidelines for Project/Programme investment • Poverty and Welfare Ranking • Area (extent)⁴ • Potential for wood supply and non wood products and services • Ongoing projects/programmes in the area • Participation in the LGRP <p>Criteria for Private Sector Involvement in Forest Plantations (TFCMP, 2001)</p> <ul style="list-style-type: none"> • Area (extent) • Potential for wood supply • Proximity to industries and markets • Export potential • Accessibility • Plantation expansion potential • Tree growth potential
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There has also been inadequate consideration of gender aspect in forest land management. The key priority will be improving management of forest estates through gender sensitive participatory management approaches⁵. This will provide for conflict management in ecosystem conservation and management. This will be a countrywide exercise noting for all the projects/ programmes to be initiated.

7.4.4.2 Forest Biodiversity Conservation and Management

Conservation of biological diversity is important for local and global values. The biodiversity values of Eastern Arc, in terms of the total number of endemic species, and density of these endemics are exceptional in world terms. These are also important as water catchment areas. Generally, inadequate baseline information on forest biodiversity and a low level of awareness on their values has impaired effective management. In this area, priority will be to assess the different biodiversity sites,

⁴ Regionally Arusha, Dodoma, Kigoma, Lindi, Morogoro, Pwani, Rukwa and Tabora have the largest forest/woodlands areas left. Also the areas under general lands are the largest in these regions. The most valuable natural forests/woodlands still left in the country are located in Mtwara and Lindi regions, Rukwa (especially Mpanda) and Kigoma regions, Ruvuma region, South-West Morogoro (i.e., Ulanga and Kilombero Districts) as well in southern parts of Coast region. These are the areas that will receive priority in CBFM, JFM implementation

⁵ This component is closely linked with the Legal and Regulatory programme.

prepare management plans and facilitate the understanding of forest biodiversity including the use of indigenous technical knowledge in the conservation and valuation of the resource.

From the point of the view of the National Forest Programme the most important eco-zones or eco-regions requiring immediate consideration and protective measures are given below based on the criteria provided in Annex 4.

Coastal Forests and Thicket: The most important lowland forest patches are Local Authority Forest Reserves. There are no National Parks and the management of the Forest Reserves is generally insufficient. The areas of highest importance requiring conservation investments are the lowland forests around Tanga town, those of the Pugu Hills outside Dar es Salaam, of the Matumbi Hills south of the Rufiji River, and of the Rondo and Litipo areas of Southern Tanzania.

Montane Forests: This zone encompasses parts of four different ecoregions: the Eastern Arc Mountains, Albertine Rift Mountains, the Kenya-Tanzania Volcanic Mountains and the southern Tanzania-Malawi Mountains. The biodiversity value of the Eastern Arc, in terms of the total number of endemic species, and the density of these endemics, is exceptional in world terms. These reserves have already been recognized and supported to conserve the biodiversity values. The Eastern Arc Conservation Strategy Framework, which is currently under development, is addressing these values. The montane forests are also valuable water catchment areas and have to be protected to maintain water quality and flow.

Since the majority of the forest remaining under the southern Tanzania to Malawi Mountains ecoregion (mainly the Southern Highlands) is found within Forest Reserves, and there are no National Parks in the area, the conservations investments into these forests are needed to ensure the conservation of the biodiversity of this forest type in the country.

Global, Regional, Bioregional and Local Values of Forests and Woodlands

It is also important to assess how outstanding the Tanzanian forests and woodlands are globally, regionally, bioregionally and locally. This analysis is shown in Annex 4.

7.4.4.3 Land Use Planning

Insecure land tenure resulting from poor land use planning has had negative effects on forest development especially in areas of high population pressure and undefined land use and security of tenure for forestlands. Ambiguous property rights have led to lack of motivation by the local people and private sector to conserve and manage trees on the general lands. Obvious effects have been degradation and erosion of biodiversity due to shifting cultivation, overgrazing, and wildfires. Priority will be to develop gender sensitive participatory land use planning in village and general lands to ascertain ownership and increase motivation for forestland development and biodiversity conservation. Areas to be covered are those with serious land use conflicts and the large areas of general lands in the central and western parts of the country.

7.4.4.4 Forest Resources Information and Management Planning

The overall forest management has for years been based on outdated and unreliable data and information due to inadequate collection, analysis, interpretation, dissemination, storage and updating of forest resource information as well as inadequate application of indigenous knowledge in forest resources management. This has resulted in failure to develop and update forest management plans in natural forests, watershed, industrial plantations and soil conservation areas and knowledge of forest ecosystems including biodiversity and water catchment resources. The priority will be to develop forest resources information through research and resource assessment, and development of management plans for respective forest land management including natural forests under central and local governments, industrial plantations, forest on general lands and on private and community areas. This will be a countrywide exercise involving new and ongoing programmes and projects.

7.4.4.5 Forest Resources Utilisation

Currently forest plantations are poorly managed and do not supply enough quality wood to support modern and efficient forest industries. In natural forests there has therefore been a heavy dependency on few species for raw materials supply for forest-based industry products. This has been a result of inadequate research and promotion of the lesser-used tree species. The potential for NWFPs and services including eco-tourism and woodfuel has not been fully assessed and utilised for both natural and plantations forests. Priority in this sub-programme is to prepare action plans for improved plantation management in consideration of the various management options such as private ownership, joint management, contracting out and leasing. Also the sub-programme would promote research and publicity of findings on the value and quality of the lesser used trees species as well as assessment and promotion of other products and services from the forests including promotion of eco-tourism and non-wood forest products⁶.

7.4.5 Implementation Strategies

Forest Management and Conservation

Forest management and conservation will adopt new approaches following overall strategies to ensure efficiency and sustainability of this sub programme: -

- (i) To ensure sustainable management of forests on general lands, through CBFM strategies to be focused on the development of clear ownership for all forests and trees on those lands. This will be facilitated through allocation of forests and their management responsibility to villages and private individuals. A special strategy for CBFM will be established learning from past experiences. The Land and Village Land Acts provide for demarcation of forest reserves

⁶ This component is closely linked with the Forestry-based Industries and Sustainable Livelihoods Programme in the aspects of processing, marketing and awareness. There is also a link with the Institutions and Human Resources Programme in terms of research.

- under central, local government, village and private individuals and granting appropriate user rights as incentives for sustainable forest management including rights to indigenous trees.
- (ii) Protective buffer zones around gazetted forest reserves with biodiversity and other amenity values will be demarcated and managed in collaboration with local communities through JFM and CBFM. The purpose of the zones is to protect the respective forest reserves and provide benefits for local communities and they will be managed in accordance with the forest management plans.
 - (iii) For the purposes of fair costs and benefit sharing it is necessary to address the cost element when establishing the CBFM and JFM to find new innovative ways to share the cost due to limited financial carrying capacity of the governments and villagers. It is also important to assess the economic, financial and social viability of gender sensitive participatory initiatives, especially of large scale, to know the expected benefits and costs in the long run. In socio-economic analyses increasingly attention is to be paid to poverty reduction and gender aspects in relation to income generation opportunities provided by timber, fuelwood and NWFPs. This will include promoting gender balanced participatory management and ownership of forest resources and products.
 - (iv) Devolving management to communities and specialized executive agencies and the private sector using updated management plans for plantations and natural forests, multi-purpose forest management plans prepared based on reliable inventory data and covering all different uses of forests. For the plantations, private involvement will be undertaken through leasing, joint ventures and contracting, private and farm forests are promoted.
 - (v) The implementation provisions include strengthening intersectoral and stakeholders' coordination including development partners. The operative coordination will be charged to the Forest Development Section of the Forestry and Beekeeping Division and the Policy and Planning Directorate of the Ministry of Natural Resources and Tourism will ensure budgetary links. NGOs and the private sector and communities will play key roles at respective levels. The NFP will make use of other strategies related to environmental conservation including National Conservation Strategy for Sustainable Development (NCSSD), National Environment Action Plan (NEAP) and the National Biodiversity Strategy and Action Plan (NBSAP). FBD/MNRT will be the lead agency in all forest resources conservation and management.
 - (vi) In order to conserve and protect forest and woodlands biodiversity in Tanzania the forest biodiversity values under five major eco-zones have to be recognized and analyzed to prioritize the regions and plan strategies and actions for implementation. Biodiversity values in the zones are to be assessed based on species richness and species endemism. The major strategies for biodiversity conservation in Tanzania are: National Parks, Game Reserves and Forest Reserves (including catchment and mangroves forests). In addition, there are *inter alia* Game Controlled Areas. At present, community participation in biodiversity conservation is encouraged through establishment of Joint Agreements.

7.5 INSTITUTIONS AND HUMAN RESOURCES PROGRAMME

7.5.1 Rationale

Improvement of the overall sectoral performance and service delivery in forestry operations at all levels is imperative. Inadequate legal and regulatory framework and functioning institutional set up that provides for clear mandates between the MNRT, PO-RALG and related institutions and organizations for cross-sectoral linkages require improvement in light of the advocated gender sensitive participatory management. Facilitation and provision of institutional frameworks, forest management incentive structure in terms of cost and benefit sharing under participatory management in decentralized system, human and financial resources are essential.

7.5.2 Objectives and indicators

The programme objectives and indicators are given in Box 7.5.

Box 7.5 Institutions and Human resources Programme Objective and Indicators

Objective: enhanced national capacity to manage and develop the forest sector in a collaborative manner

Indicators by 2010:

- effective institutional framework for the sector in place, including the establishment of an Executive Agency (ies) in charge of forest management and conservation
- effective sectoral, intersectoral and donor coordination in place
- competent staff in place, with skills matching job requirements and supported by adequate remuneration packages
- donor dependence in sectoral financing reduced from 68% to 20%, most external financing to the sector channelled through a sector wide approach
- cost effective forest extension system is in place based on a strategy developed jointly by the central government and local government institutions in collaboration with other stakeholders
- forestry research functioning in a collaborative manner, providing sound scientific answers to priority issues in sectoral development

7.5.3 Priorities

Priority setting regarding human resources development and institutions is meant to guide on critical areas to support implementation of other development programmes. The decentralized forest management involving local governments, private sector and communities can only be successful if there will be an institutional change including strong human capacity building. Four top priority sub-programmes for implementation in this programme are:

- (a) Strengthening Institutional Set up, Sectoral Coordination and Cooperation
- (b) Human Resources Capacity Building
- (c) Forest Financing

- (d) Strengthening Extension Services and Awareness Creation in Forest Management
- (e) Forestry Research

The Logical Framework Matrix for all sub programmes is given in Annex 7.

7.5.4 Sub programmes

7.5.4.1 Strengthening Institutional Set up, Sectoral Co-ordination and Cooperation

Forest management draws the participation of different stakeholders ranging from local and international partners. Priority will be in developing mechanism for adequate sectoral and inter- sectoral co-ordination and consultation of stakeholders in planning and management of forest resources as well as regional and international co-operation in implementation of SFM. Future forest management will require integrated planning to accommodate the different roles played by different actors. Priority will be placed in providing for adequate consultation of stakeholders in planning and management of forest resources. Inter- sectoral coordination, through formal fora and other mechanisms will be developed especially in costs and benefits sharing among stakeholders in cross-setoral areas such as watershed management and ecosystem conservation. Interpretation and implementation of international initiatives and agreements will be an area of focus here to ensure that the country taps resources and opportunities under these initiatives.

There is weak institutional linkage and unclear mandates between the central and local levels, NGOs, local communities and the private sector on conservation and management of forest ecosystems. The forest and trade legislation for wood and non-wood forest products are unharmonized. Priority will be to streamline mandates of institutions involved in forestland management, ecosystem conservation and prepare modalities for stakeholders' consultations based on the ongoing local government reforms and institutional change studies under the Tanzania Forest Resources Management Project. The forest related trade legislations that are currently under different institutions would be harmonized through intersectoral consultations.

7.5.4.2 Human Resources Capacity Building

There is inadequate human resource capacity to implement forestry programmes at divisional level and more so at local government levels. This has been aggravated by poor working conditions for civil servants in terms of adequate training, facilities and remuneration. The spread of AIDS in the country has also led to a decline in number of male and female forest staff. Priority in this component will be assessment, recruitment of competent gender proportionate staff as well as training. The sector will promote awareness in collaboration with other stakeholders in terms of instituting behavioural change to reduce the spread of AIDS/HIV.

As decentralization, privatization and institutional reforms continue, providing adequate extension services to all stakeholders for SFM and awareness raising, involvement of all stakeholders and consideration of gender aspects in National Forest and Beekeeping Programmes will be a priority. The ongoing reforms both at central

and local governments will form a basis for strengthening future forest management in terms of establishment of executive agencies and efficient local governments. For the artisanal wood-based industry, there are also inadequate skills. FBD will work in close collaboration with different institutions to develop curricula and skills for the artisanal wood-based industry.

7.5.4.3 Forest Financing⁷

Forestry management and development has been inadequately financed including research and training institutions, investment and development of forest based industry and products, funding of biodiversity conservation and sustainable management. On the other hand, there has been poor administration and management of revenue collection from forest resources.

Priority action will be to develop mechanisms for increasing investments in forestry-based industry through involvement of the private sector, tapping financial sources for forest conservation through local and international opportunities for biodiversity conservation under the CBD and CCD. Priority will also be placed in strengthening internal financing through improvements in local revenue collection and establishment of funding mechanisms such as “Basket Funding”, “Forest Fund” etc as identified under the Financing Strategy.

7.5.4.4 Strengthening Extension Services and Awareness Creation in Forest Management

This component will focus on strengthening extension services to all stakeholders to ensure effective involvement in terms of creating awareness on the forest policy and legislation for SFM. Promoting gender awareness and involvement of sections of the society in forest programmes will also be emphasized making use of indigenous knowledge on management and uses of forest resources at local level. Effective political support will be required for NFP implementation, which will need awareness creation for politicians and decision-makers. This is done by preparing and disseminating information packages for politicians on the role of forestry as well as carrying out strategic educative workshops with politicians.

7.5.4.5 Forestry Research

Forest research has been limited in spectrum and diversity. Emphasis has been on the development of the management of commonly used species and popular ecosystems like the high montane forests for biological and ecosystems conservation. Priority will be to develop adequate financing in research that will allow for nation-wide coverage in the forest sector and provide adequate knowledge in forestland management and ecosystems conservation. Also dissemination of research findings and conducting applied research need be improved. The National Forest Research Master Plan (NAFORM) will be integrated to serve the purposes of NFP.

⁷ Due to its importance, financing is discussed in detail under Chapter 8

7.5.4.6 Policy Analysis, Planning and Monitoring

Sustainable Forest Management will rely on updated and adequate laws, regulations and guidelines. Priority actions will build capacity for systematic policy analysis, strategic planning and forest laws and regulations' analyses and review. Also to establish a framework for formulation and review of the respective instruments taking care of all management approaches. Setting National Criteria and Indicators for sustainable forest management is an inherent requirement for effective forest development.

7.5.4.7 Forest Resources Valuation

There is poor understanding on the value of forest ecosystem products and services in terms of both tangible and intangible values. Priority will be to conduct special studies for valuation of both tangible and intangible forest products and services and incorporation of biodiversity and other values into the national accounting system.

7.5.5 Implementation Strategies

7.5.5.1 Forest Administration Improvement

A facilitative sectoral administration is crucial in supporting decentralization of forest management responsibilities. Improving coordination between the central and decentralized levels as well as strengthening competence and capacity at all levels will be necessary.

7.5.5.2 Local governments capacity development

In collaboration with the local governments and Ministry of Regional Administration and Local Governments, the forest sector will develop sufficient capacity of the local governments to administer and manage forest resources through gender balanced recruitment of qualified forestry staff and harmonization and rationalization of revenues from local sources for financing forest management.

7.5.5.3 Participation of other government and non-government institutions

Promotion of cross-sectoral coordination between the forest administration and other government institutions at all levels need be done through formal mechanisms. This includes forest-related issues in environment management and conservation of natural resources at the central and local levels. Areas of envisaged collaboration include integrated planning, policy formulation and extension services.

NGOs have a significant role in forest management. Coordination and cooperation with NGOs will be promoted to facilitate their role in terms of building comprehensive plans, financing and supporting the communities and the private sector.

To facilitate effective private sector contribution to forest development, enabling environment will be created including providing regulatory framework related to leases and concessions, ownership and tenure rights, information on forest resources and guarantee of raw material supply and incentives for investments. To boost

investments in terms of developing capital, collaboration with relevant institutions related to credits and transfer of technology will be promoted. Establishment of Executive Agency(ies) will enhance management responsibilities earlier under the central government.

Recognizing the important role of local communities in forest management, effective clear participatory frameworks will be set up to encourage formal gender proportional participation including forest land and tree tenure rights and guidelines for collaborative management. Incentives related to retain revenue accrued from products and services derived from community-managed forests will be harmonized as an incentive for sustainable management.

7.5.5.4 Enhancement of forestry research, training and extension services

Forestry research and development will be strengthened and priorities redressed to address basic needs in the socio-economic development over and above the other requirement of sustainable management of the forest resources. This will require developing demand-driven and problem-oriented research activities, which will attract cost sharing, own revenue generation and collaborative research with both local and international institutions. Strengthening of competence will be achieved through streamlining the research institutional structure focusing more on leaner but competent personnel structure. Major areas to be focused on are summarized in Box 7.6.

Box 7.6 Major areas of NAFORM to be focused by NFP

- Identification of best conservation and management practices for natural forests including the use of Indigenous knowledge (IK);
- Earmarking sites of high biodiversity and endemism for management and conservation;
- Identification of best species and mixes for use in community and farm forestry ;
- Provision of best management practices for identified genetically improved material of indigenous and exotic tree species;
- Development of appropriate policies, legislation and guidelines for mechanisms in participatory management involving the private, communities and the gender aspects;
- Valuation of forests including their contribution to the livelihood of communities; food security and GDP;
- Development of efficient extension approaches;
- Increased efficiency in forest resources utilisation through technology advancement;
- Understanding wood properties of lesser utilized trees and diversification the range of species for use;
- Setting quality standards for wood and non-wood forest products and their marketing.

Building professional, technical and specialized competence in the forest sector will be a priority for facilitating decentralized forest management as well as playing the backstopping role. For this to take effect comprehensive training plan will be developed and the training institutions will have to promote demand-driven training, thus regular reviews of the curricula will have to be conducted. For the specialized competence building, international cooperation will be promoted.

The forestry extension services will ensure increased awareness for the different stakeholders, mainly the private sector and communities. Harmonization of forestry related extension messages through integrated planning and cross-sectoral coordination mainly at local levels would be stressed to ensure effective management and utilization of forest resources and rational use of human and financial resources. Emphasis will be on promoting private and community forestry through collaborative forest management and setting up incentive mechanisms for private woodlots. Capacity for effective extension services delivery will be developed in the context of gender and overall socio-economic development targeted for different geographical areas and ecological zones. Noting the key role played by the NGOs and other sectors such as agriculture, livestock development and community development, collaborative initiatives with these sectors will be emphasized.

7.5.5.5 Enhancing financing mechanisms

The forest sector will develop new and innovative sectoral financing mechanisms involving the key stakeholders. This will include enhancing self-financing mechanisms through broadening of the revenue base, introduction of charges for other products and services and undertaking full valuation of the resource use and improvement of revenue collection. Studies carried out indicate that the annual forest royalty revenue could total Tshs 20-30 billion. However, the highest amount collected so far has been Tshs 1.9 billion in 1999/2000 and the target for 2000/01 is Tshs 4.0 billion. Efficient collection of royalties and other fees will be harmonized with local governments or other feasible mechanisms. Other initiatives will entail promoting private sector and local community investments in forestry activities. Financing mechanisms are discussed in detail under Chapter 8.

At international cooperation level, opportunities provided under various conventions, agreements and mechanisms would be fully explored and utilized. This will be tied with activities having global significance such as biodiversity conservation and climate change.

Capacity development for coordination of donor inputs into the forest sector at all levels will be strengthened to ensure direction of resources to priority areas and reduce overlaps. Activities will be mainstreamed into existing government structures and organization through consultations to do away with parallel administration in the spirit of sectoral development. Incentives will be developed for the male and female forestry staff to be retained and attracted in the sector. The sector's capacity to participate and harness opportunities provided in the international processes will be strengthened.

7.6 LEGAL AND REGULATORY FRAMEWORK PROGRAMME

7.6.1 Rationale

The Legal and Regulatory Framework programme encompasses issues and priorities related to creating enabling environment for implementation of other programmes in the context of local and global trends that include institutional change, decentralization, privatisation, gender sensitive participatory management and biodiversity conservation.

7.6.2 Objective and indicators

The programme objectives and indicators are given in Box 7.7.

Box 7.7 Legal and Regulatory Framework Programme Objective and Indicators

Objective: enabling legal and regulatory framework for the sector in place

Indicators by 2010:

- laws, regulations and guidelines support establishment of Executive Agency (cies) with clear service functions in SFM
- laws, regulations and guidelines in place which allow effective contribution by all stakeholders in sectoral development based on clearly defined rights and responsibilities
- sectoral laws, regulations and guidelines in line with those of the other relevant sectors
- implementation of laws, regulations and guidelines carried out in a transparent manner allowing predictability of outcomes of actions

7.6.3 Priorities

The forest regulatory instruments have largely served on controlling forest resources utilization even where local frameworks such as by-laws and guidelines have been developed. The existing laws inadequately address the strong emergence of community and private sector involvement in forestry as well as institutional change towards establishment and operation of Executive Agency (cies). While the draft Forest Act address these inadequacies, concerns on formulating appropriate regulations and guidelines for active and sustainable forest management is paramount. All the sub-programmes for the programme are of top priority:

- (a) Development of Laws and Regulations
- (b) Harmonization of Regulations, and
- (c) Development of Sector-specific Environmental Impact Assessment Guidelines

The Logical Framework Matrix for all sub programmes is given in Annex 7.

7.6.4 Sub-programmes

7.6.4.1 Development of Laws and Regulations

There is inadequate legal framework for private sector/ community gender balanced participation in forestland management. This has led to low motivation for the local communities and private sector to effectively participate in management of central and local government natural forest reserves, industrial plantations, and forests on general lands as well as on private and community lands. As sharing of responsibilities becomes eminent in the forest management, formal mechanisms for sharing benefits are needed. Absence of guidelines for gender sensitive participatory forest management has restricted motivation for substantive investment by communities and the private sector. Among the consequences is multiplicity and uncoordinated charges on forest products set by mainly central and local governments. The existing laws, regulations and guidelines inadequately support conservation of biodiversity including bio-prospecting as identified under CBD.

Priorities will be to prepare clear operational guidelines for gender sensitive participatory management with local governments, communities and private sector including agreements and contracts to respective partners. To ensure effective involvement, modalities will be set for cost and benefit sharing in collaboration with relevant stakeholders through rationalization of charges on forest products. To guarantee adherence to the CBD, priority actions will be to identify potential sites/habitats for forest biodiversity and prepare and disseminate national regulations and guidelines for forest bio-prospecting.

7.6.4.2 Harmonization of Regulations

Effective development of the private sector in forestry requires establishing efficient administrations and regulatory procedures. This is true in terms of developing concessions, leases and other types of forest utilisation as well as management contracts. There are also overlaps and conflicts in some land use regulations such as those related to mining, wildlife management, agricultural development and forest related trade. Priority will be to develop mechanisms for harmonizing overlaps/conflicts in different regulations through cross-sectoral consultations. To facilitate private sector operations in forest development, the focus will be to develop agreements for concessions and leases as well as to prepare standard operational contract formats.

7.6.4.3 Development of Sector-specific Environmental Impact Assessment Guidelines

Environmental conservation is on the high agenda in every development. Forest management has so far not taken into account environment concerns in forestland management, wood and non-wood based industry and services and the general investment projects in forest areas. Priority in this area will be to develop and disseminate national sector specific guidelines for environmental impact assessment.

7.6.5 Implementation Strategies

Mechanisms for effecting legal and regulatory frameworks revolve around providing an enabling environment for operationalization of the National Forest Policy and the National Forest Programme. This requires having in place a strong and competent forest administration in terms of strategic planning, analysis and coordination for cross-sectoral issues.

Development of sectoral competence for formulation and revision of forestry legislation, development of facilitative management guidelines for different forest types and by-laws at all levels will be a way forward. Setting and harmonization of regulations and guidelines related to costs and benefit sharing will guarantee effective participation of local communities and private sector in decentralized forest management and administration.

- (i) In order to improve forest conservation and management and to ensure equitable sharing of benefits amongst all stakeholders, guidelines that support sustainable management will be prepared, joint management agreements between the central government, specialized executive agencies, private sector or local governments, as appropriate in each case, and organized local communities or other organizations of people living adjacent to the forest, will be promoted. The local communities will be granted appropriate user rights for forest produce and forests will be managed in accordance with approved management plans.
- (ii) To create sustainable industrial plantations and other types of forests, specialized executive agencies or the private sector through appropriate lease, concession or joint management agreements will do management.
- (iii) In order to conserve valuable key habitats and ecosystems with endemic species sufficient areas of key forest ecosystems and habitats will be put under effective legal protection including updating them to nature reserves.
- (iv) Streamlining procedures for administration of forest products and trade.
- (v) Rationalization of charges on forest products (royalties) will be carried out with all relevant stakeholders to guarantee the competitiveness of forest products in local and international markets in relation to competing products; aim is a market-based pricing/charge system.
- (vi) All forest investments and development activities will be monitored to ensure adherence to EIA guidelines.
- (vii) Regulations for bio-prospecting will be developed in partnership with relevant stakeholders.

7.7 FORESTRY-BASED INDUSTRIES AND SUSTAINABLE LIVELIHOODS

7.5.1 Rationale

The key challenges in the forest industry and products have been inefficient forest utilization and technology. The programme is meant to tackle wasteful and non-sustainable logging and utilization of forest produce, and meeting the national demand for forest produce such as woodfuel, sawn timber, pulp and paper, NWFP and other

forest produce. Dependence on forest products by majority of the rural communities for their livelihoods enables forests to contribute to poverty reduction.

7.5.2 Objective and indicators

The programme objectives and indicators are given in Box 7.8.

Box 7.8 Forestry-based Industries and Sustainable Livelihoods Programme Objective and Indicators

Objective: increased economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade of forest products

Indicators by 2010:

- investment into mechanical and/or chemical forest industry increased by 35%
- production of mechanical forest industry products increased by 30% and the value of exports by 25%
- chemical forest industry rehabilitated and in operation with appropriate environmental safeguards in place
- quality of Tanzanian forest products meet internationally acceptable standards
- employment in forest industry and related activities increased by 25%
- income generation from NWFP and services to local communities has increased by 20%
- dependence on wood fuel in national energy consumption reduced by 10%

7.7.3 Priorities

The forest-based industry has been inefficient in harvesting and processing due to inadequate participation of the private sector, obsolete technology, low capital, narrow products range and markets as well as poor infrastructure. However, many of the products provide considerable market and income generation opportunities, which have not been adequately addressed. The two top priorities sub-programme are:

- (a) Forestry Products and Services Information Development
- (b) Products and Markets Promotion and Awareness Creation

The Logical Framework Matrix for all sub programmes is given in Annex 7.

7.7.4 Sub programmes

7.7.4.1 Forestry Products and Services Information Development

Forest industry development has been weak because of limited knowledge and information on markets and marketing of forest products and services. This also includes limited information on raw materials for all ranges of wood and non-wood

forest products. Priority here will be establishing updated database for traded and non-traded forest products & services, markets and dissemination of this information to relevant stakeholders⁸.

7.7.4.2 Products and Markets Promotion and Awareness Creation

The forest industry in Tanzania has traditionally been dominated by sawmilling, and to a lesser degree, fibreboard, chipboard and joinery and furniture. These products have mostly relied on few fine hardwood and plantations species. This has been a result of limited knowledge or inadequate promotion and awareness creation on lesser-used tree species and non-wood forest products and services. There is also limited knowledge on markets by local and international producers and inadequate marketing skills.

Priority in this component will be strengthening information management for the forest industries and markets and conducting extension service and publicity of lesser known/used species and promoting right end uses of wood products and creation of linkages between producers and consumers⁹. Many products and services provide income-generating opportunities.

7.7.4.3 Forestry Industry Technology Development

The products from most industries have exhibited low quality as a result of obsolete and inappropriate technology for processing. The artisanal industry that employs a fairly large number of the rural population is equally facing limited technology for high quality products. The forest sector will facilitate the development and involvement of private sector in collaboration with other relevant sectors and institutions including the private financial institutions. The focus will be in developing quality standards for various products and facilitate development of appropriate technology.

Woodfuel constitutes about 92% of the energy used in the country. This high level of utilization threatens sustainable management of forest resources. The challenge has been development and innovation of affordable alternative sources of energy especially for the rural and urban poor communities. Priority will be to determine and develop alternative affordable sources of energy in collaboration with other stakeholders including research institutions and private sector.

7.7.4.4 Infrastructure Development

Most of the forest resources in the country are located in remote areas with poor infrastructure, mainly roads. This has impaired initiation and development of forest-

⁸ This sub-programme is linked with the Forest Resources Utilisation component of the Forest Resources Conservation and Management programme.

⁹ This requires a close linkage with the Institutions and Human Resources Programme in terms of research, awareness creation and dissemination of information. The component will also interlink with the Coordination sub-programme in this Programme in working with the related sectors such as Trade and Industries sectors.

based industry in terms of access to the raw materials and availability of the necessary facilities such as electricity. Again markets and marketing of products remains a problem in these areas. Priority actions will be providing support to development of infrastructure in forest plantations and natural forests in collaboration with other relevant sectors.

7.7.5 Implementation Strategies and Mechanisms

The Government has a key role to play in creating an enabling environment for attracting new investments into chemical and mechanical industries. Forest resource assessment and data availability, as well as market information on forest products, needs improvement to direct investments into wood surplus areas and right products. Commercialising or privatising the management of existing industrial plantations through concessions and leases can improve raw material supply. Also availability of financial resources for forest industry has to be facilitated to establish new capacity and rehabilitate old plants. The use of appropriate technology in harvesting and wood processing can be promoted through training and extension. In addition, infrastructure improvements are necessary to facilitate market accessibility.

For woodfuel, which constitutes over 92% of the energy use in the country, a number of strategies are required to ensure sustainability in production and utilization as outlined in Box 7.9.

Box 7.9 Key Mechanisms for Guaranteeing Woodfuel Availability

- Active tree growing by all households to meet their woodfuel demand by providing financial incentives and credit facilities.
- Use of improved firewood and charcoal stoves.
- Improve efficiency of traditional charcoal production technologies.
- Intensify conservation and management of village forestland through community efforts.
- Intensify awareness creation on poverty eradication strategies through sustainable supply of woodfuel and other affordable energy sources.
- Intensify women involvement in woodfuel development programmes.

7.7.5.1 Artisanal Wood-based Industry and Products

Forest resource assessment of lesser-known species will be conducted to provide better resource data to carvers. New tree species suitable for woodcarving will be identified and made available and promoted. Also research on lesser-known species needs strengthening. Availability of market data on supply and demand prospects of artisan products in domestic and foreign markets calls for improvement to support marketing efforts. Existing wood carving technologies have to be identified for research and training to improve conversion.

7.7.5.2 Eco-tourism

Assessment and mapping of potential areas/sites for eco-tourism will be done. Promotion of identified sites is needed to encourage private sector and communities to develop eco-tourism products and services for income generation in collaboration with relevant stakeholders including the Tanzania Tourism Board. Also cross-sectoral linkages with other sectors, such as wildlife, have to be promoted. Regulations and guidelines regarding eco-tourism needs to be established and basic infrastructure have to be in place to attract investments.

7.7.5.3 NWFPs

Supply and demand statistics and market data are required to assess the potential for domestic use and commercialization of different NWFPs, including assessment and recording of indigenous knowledge. Awareness raising and extension services among local communities will be promoted to improve production, processing and marketing. Particularly, NWFPs as food security items need promotion. Also new financing mechanisms needs to be developed to attract private sector investments in NWFPs. An assessment of benefit/revenue sharing between local communities and government will be carried out to encourage NWFPs production and marketing. In addition, research, training and product development programmes will be strengthened.

7.7.5.4 Trade in Forest Products

Internal trade and exports of forest products such as sawn timber, round wood, and flooring can be expanded if marketing efforts are strengthened and the products are competitive in pricing, new value added products developed, quantity and quality and regular supply can be guaranteed. The introduction of mechanisms such as C&I for SFM and forest certification through national, regional and international initiatives will be supported.

8. FINANCING STRATEGY

Objectives

The objectives of the financing strategy were to:

- i) Address the financing in the Tanzanian forestry, and
- ii) Review royalty calculation and propose foundations for a new pricing system in attempts to improve internal financing for the forest sector.

8.1 Financial implications

Forest sector inherently involves long-term investments. Rampant and unpredictable inflation and subsequently high interest rates can render such long-term investments unfeasible. Availability of credit facilities and control of inflation will have substantial implications in forest development. The government withdrawal from productive functions and phasing out of financial subsidies to forestry would require the introduction and strengthening of private financial institutions, restructuring of banks and liberalisation of foreign exchange and interest rates favouring long-term investments.

Foreign exchange liberalisation will facilitate the development of internationally competitive Tanzanian forest industry in medium or long term. The forest sector will have to work in close collaboration with private sector, government and private financial institutions to ensure that the right mechanisms are in place.

The government planning and budgeting frameworks introduced in the beginning of 1990s link the plans and budgets with government long-term objectives and strategies, and provide for rational resources use based on needs and the overall national priorities. The government budget on forestry has been less than 1% of the total national budget in the last two decades. At the same time, the donor contribution to forestry projects and related activities has been about 70% of the total sectoral funding. Trends show declining donor funding and the reduction of government subsidies to forest development. This places a strong pressure on forest sector administration to compete for the scarce government resources and as well as for the external financing. The need for increased own revenue collection is clearly recognised by the Forestry and Beekeeping Division. Sectoral revenue would need, however, to be complemented by contributions from the private sector, NGOs, communities and individuals.

Transfer of forest management responsibilities to the communities and local governments will imply an increase in financial commitments by the local governments, which in turn requires the expansion of the revenue base of the local governments without leading to unsustainable utilisation of their forest resources.

Presently, the FBD receives its financing from three sources:

- Government budget through the Treasury, which covers the FBD personnel emoluments,

- Retained income from the forest revenues under its jurisdiction (net 56% of the actual revenue collected),
- Donors' support to specific projects.

The financing of the forest sector has largely depended on donor support. Increased domestic contribution can be achieved through a combination of strategies, including: (i) expansion of revenue base, (ii) improvement of revenue collection, (iii) improvement of forest produce pricing system, and (iv) promotion of stakeholder involvement, particularly domestic private sector. Increasing the efficiency and effectiveness of the foreign financing, including donor support, the strategies include (i) increasing foreign direct investment, (ii) optimising the use of foreign assistance e.g. through basket funding approach, and (iii) making the use of international opportunities related to new international initiatives.

8.2 Expansion of Forest Revenue Base

Presently forest revenues are collected only on a few products, mainly timber, fuelwood and some non-wood products. The intention is to expand the revenue base. Revenue could be collected also from previously non-marketable services e.g. through watershed management fees from hydropower stations, eco-tourism fees, sale of carbon sequestration credits (Clean Development Mechanism of the Kyoto Protocol), bio-prospecting and sale of genetic resources, etc. There is a need to develop mechanisms for operationalizing such revenues. The revenue base can be expanded also in timber products. The use of timber from lesser-used species will be promoted by research and demonstration efforts.

Regarding commercial woodlots and plantations, payment of income tax to both the central and local governments, as well as property tax to the central government could be considered as a source of additional revenue. Income tax could be based on the actual income from timber sales, and the property tax could be based on the average productive capacity of different land categories. In addition, management support fees could be charged from large forest estate. Care must be taken, however, in order not to overtax the commercial plantations; they must continue to be profitable to thrive.

Revenue enforcement and the collection of royalties and other fees from all the wood and non-wood products using entities will need to be further strengthened. Examples of typical evaders include the tobacco and fishing industry. Bureaucracy in business registration and acquisition of licences to invest in forest activities will be reduced. Fees to acquire licences for investment in forest sector will be reduced to encourage investments.

8.3 Improvement of Revenue Collection

Forest revenue collection and monitoring system is constrained with a number of technical and administrative problems. Such constraints include competing claims over forest revenue by different authorities (District Council and Central Government). Rationalising and harmonising the collection is needed. Consultations between FBD and Local Governments must be carried out to define common rules.

The capacity of FBD to collect and monitor revenue is weak. Strengthening the revenue collection capacity through training on royalty assessment, collection and reporting in the FBD as well as providing administrative and political backing would facilitate improved collection.

Managerial culture will be developed to promote transparency, individual accountability and responsibility. Mechanisms to increase the staff motivation, e.g. through a compensation system and other incentives, will reduce irregularities, including corruption and collusion. Reporting and monitoring of revenue collection needs to be streamlined through the reduction of unnecessary bureaucracy in acquiring licences, permits and registration. Simplified licences and improved control through checkpoints, stock registers and transit passes will be developed. A unified single fee for each product will be attempted to eliminate multiple fees and cesses/taxes charged by central government and local governments by clarifying the responsibilities between the central government and local government staff.

To increase efficiency and cost-effectiveness, various alternatives will be looked into including possibilities of contracting out some or all of the tasks of revenue collection to e.g. Revenue Authority or private sector.

8.4 Improvement of Forest Produce Pricing System

So far, prices for forests products and services have been fixed administratively. This has denied the forest sector of its due revenue, as the prices have not reflected either the cost of management or the resource replacement cost. Market-based pricing of forest products will be aimed at in order to stimulate competitive and efficient domestic forest industry, and to catch highest possible revenue to the public sector as a resource owner, and also to stimulate private forest plantations. Public auctions or tendering/bidding of defined standing or felled timber lots or concession areas are recommended sales methods. Royalty calculations will be based either on the resource replacement cost or on the residual calculation from the selling price of final products. If the forest produce markets evolve and become competitive, the royalty calculations render unnecessary.

8.5 Promotion of Stakeholder Involvement and Domestic Private Sector

One option in reducing the costs of forest resources management is the participation of all stakeholders in forest management and conservation. Such option includes collaborative management i.e. Joint Forest Management and Community-Based Forest Management as well as the promotion of private sector participation in ownership of plantations. Promotion of this kind of stakeholder involvement will require reducing bureaucracy in acquisition of forestland and in permitting and licensing investments in forest development. Management guidelines for stakeholder involvement will be developed, Joint Management Agreements prepared, and clear and attractive benefit sharing system set for the local communities and / or private sector.

The private sector will be encouraged to take an active role in forestry development through the provision of clear guidelines and information on investment opportunities. The central government forest authority (FBD) will monitor the business environment

in forestry-related industry by keeping close and regular contacts with private sector. FBD will also work towards improving the general business environment, with special reference to the removal of barriers for profitable investments in forest sector. This includes the preparation of guidelines on investment opportunities in the forest sector, procedures for land acquisition for investment in commercial tree planting, clear definition of ownership of all forestland and trees in order to limit open access in the management and utilisation of forest resources. Other possible means include improving infrastructure, providing tax incentives and price concessions (in clearly specified cases), credit facilities for investments and joint ventures, transfer of technology, and the definition of property rights.

8.6 Optimizing the Use of Foreign Assistance and Increasing Foreign Investment

It is envisaged that the forest sector will continue to receive donor assistance at least in the short and medium term. Presently there are over 40 donor-supported projects involved in the management of forest resources under the central and local governments. Fragmented projects have led to a heavy management and monitoring burden on FBD while also creating overlaps and inefficiency in resources use. The aim is to develop a sector programme approach (sector-wide programme) for donor assistance in forest sector with clearly defined and well managed basket funding, thereby reducing the multitude administrative roles and management requirements. In the short-term, attempts will be made to encourage donors to negotiate and develop larger technical assistance packages optimising the use of scarce human and financial resources, and increasing the ownership, commitment, and reducing overlaps.

In medium and long term, the aim is to make full use of the opportunities provided by the various international initiatives such as the GEF under the Convention on Biological Diversity (CBD), and the emerging mechanisms (CDM) under the United Nations Framework Convention on Climate Change (UNFCCC). The Forest sector will follow up actively the international developments in forest-based CO₂ sequestration, which may be one of the options for attracting development assistance into Tanzanian forestry.

The global trend of privatisation and increasing role of private sector investments is fully recognised. Special means will be devised to attract foreign investments, including the simplifying of registration, acquisition of licences, and securing the provision of raw materials for foreign investments in forest sector. The provision of reliable up-to-date information on forest resources and other possibilities in Tanzanian forest sector will be the responsibility of the FBD to facilitate both domestic and foreign investment in forest sector.

8.7 Innovative Financing Mechanisms

The NFP implementation will strongly support the introduction and use of innovative new financing mechanisms which can be used particularly in financing the production of non-tangible forest services, such as biodiversity conservation, amenity, watershed conservation, etc. Such initiatives include e.g. the Eastern Arc Conservation Endowment Fund, GEF's Kijani Initiative, Kilombero CDM Initiative, etc.

The Eastern Arc Conservation Endowment Fund has a sound base, provided the initiative can attract sufficient volume of initial capital. There are examples of similar Funds from other countries in the world from which lessons could be learnt. All donor agencies will be invited to contribute to the Fund. Special efforts will be made to attract support from large US and Europe-based foundations.

The GEF Kijani Initiative is directed for providing support to private sector projects, which have biodiversity conservation elements. Eligible projects include e.g. ecotourism business. Private sector projects in Tanzania are eligible for support. The Kijani Initiative can provide innovative models for mobilising public-private partnerships in biodiversity conservation.

Kilombero CDM Initiative aims at tapping the potential for earning credits from carbon sequestration in forestry. Unfortunately the rules for the CDM, including the eligibility of forestry projects, are not yet clear. However, this kind of innovative approaches will be supported by the NFP as Tanzanian forest sector must be brought close to the forefront in the global forest sector development.

9.0 NFP IMPLEMENTATION AND MONITORING

9.1 Next Steps in NFP Implementation

In the near future, the key steps in the NFP implementation that need be taken up include;

- The NFP programme document is disseminated and publicised to all relevant stakeholders for action at national level. This is important taking into account the necessary coordination of development partners, local and international agencies supporting the implementation of the programme and in facilitating the move towards a programme approach in NFP implementation;
- The Programme receives the necessary support in the local governments. This will entail conducting meetings with key decision-makers at local level to disseminate NFP information and promote start-up of district NFP planning and implementation;
- Monitoring system for implementing the NFP is set up in terms of assessment/refinement of existing Criteria and Indicators for SFM, and refinement of NFP indicators based on national C&I. This will involve also training of FBD and some district staff on the application of the system;
- Develop activities towards a programme approach by assessing and designing programme framework, instruments and milestones at national and district levels. In this respect, NFP Coordinating Unit will be facilitating and following up capacity building in the districts through technical support.
- Enhancing community and gender mainstreaming and income generation in relation to poverty reduction especially for non-wood forest products.

Strengthening NFP Coordinating Unit

In the interim, the Coordinating Unit will be reviewed and strengthened so that it can undertake its responsibilities effectively. The actions related to strengthening the NFP Coordinating unit shall include: -

- Assigning on a permanent basis a National Coordinator responsible for coordinating NFP implementation process.
- Expanding and balancing the composition and number of members in the NFP Task Force Coordinating Unit so that the unit has the requisite capacity to address adequately the implementation and monitoring of the forest programme based on the NFP development programmes.

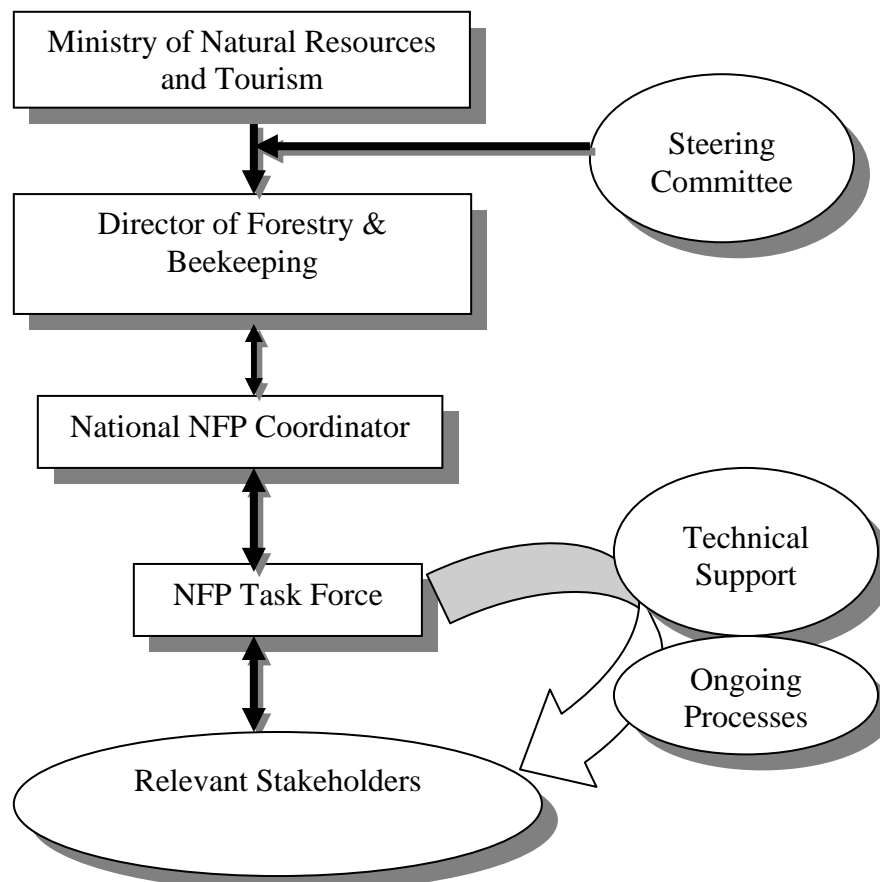
Strengthening Steering Committee

In order to have wider guidance of stakeholders, the Steering Committee (SC) of the NFP will be broadened to include representation from more stakeholders for cross sectoral linkages. This is seen to be important as NFP moves into the implementation stage. Representations to be added to the Committee will be:

- The Regional Administration and Local Government noting the role of this ministry in the ongoing Local Government Reforms as well as administration at district levels,
- The National Land Use Planning Commission taking into account their role in land use/planning,
- Division of Environment of the Vice President for environmental issues
- Sokoine University of Agriculture – Faculty of Forestry and Nature Conservation
- Private Sector Foundation for investment and trade issues.

The current composition of the SC includes Ministry of Finance, Planning Commission, Policy and Planning Division of the MNRT, Division of Forestry and Beekeeping and the Government of Finland. The NFP structure is shown in Figure 9.1.

Figure 9.1 Coordination Set up for NFP/NBP in Implementation



9.2 NFP Monitoring and Evaluation

The NFP Document provides a comprehensive framework for managing forests sustainably by all stakeholders. In practice, the NFP is a dynamic process for planning, implementation, monitoring, evaluation and taking corrective actions in forestry operations. NFP will be coordinated by the Forestry and Beekeeping Division as a lead agency mandated to manage forest resources in the country. Consequently, NFP has to be in-built in the FBD management planning, implementation and monitoring systems. A comprehensive MIS system is needed to make informed decisions on a daily basis.

The programme progress shall be such that inputs, activities and outputs are monitored with reference to the objectives using specified indicators. Changes in external factors such as macro-economic and related sectoral policies, legal and institutional frameworks that are relevant to the development of the programme shall be registered to provide for improvements in the review or programme replanning. Progress reports will be a major source of information for verification.

A framework for data collection and information management is non-existent. This has been a drawback in consistent planning and monitoring. In establishment of MIS the varying requirements of the different stakeholders have to be noted. The framework would indicate type of information the different stakeholders need to effectively carry out their roles and mandates.

Development of Criteria & Indicators for SFM and their Monitoring

Criteria and Indicators (C&I) for sustainable forest management have to be in place as operational tools for monitoring and measuring trends in SFM over time at national and local levels. C&I will serve as an early warning system and help in identifying gaps and threats in SFM to be addressed in operational forestry. In the globalization of forest management, C&I enable local, national and global comparability in respective areas such as forest certification criteria.

In order to fulfill the local, national and international challenges the forest sector has 6 different, partly conflicting tasks to put sustainable forest management into action, depending on the priorities of concerned stakeholders at local, national and international levels.

- Produce socio-economic benefits from forests
- Safeguard biological diversity
- Safeguard forest ecosystem health and vitality
- Take care of productive functions of forests
- Safeguard environmental and conservation functions of forests
- Benefit from forest resources and their contribution to global carbon cycles

In addition, adequate legal, institutional, financial and informational frameworks and instruments are needed to actually make sustainable forest management work.

Tanzania has already embarked on developing her own national C&I, but this work is still in its initial phases. The country has participated in meetings, which developed

C&I for Dry-Zone Africa (Nairobi Process) and for Southern Africa Development Community (Lilongwe Process). In May, 1999 a Workshop on C&I was organized in Arusha where local forestry experts and stakeholders developed C&I applicable to Tanzania, based on the criteria and indicators for the SADC region.

In 1999 a Task Force was formed to facilitate the consultative process to prepare operational guidelines for the incorporation of C&I in forest management plans, to identify resources for the implementation of C&I, and to prepare an action plan for the implementation of C&I. Parallel to the NFP implementation this Task Force should be activated to participate in the design of monitoring system for NFP implementation. The indicators for NFP monitoring are going to be developed and refined based on the Tanzanian C&I for SFM.

9.3 Financing of Inputs

The NFP is expected to draw resources for implementation from various stakeholders including the private sector, public and external assistance. Declining donor assistance to the forest sector necessitates administrative and financial improvements with the emphasis on increasing internal financing from own sources as well as the private sector, NGOs and individuals. The approval by the government for the forest sector to retain revenue in terms of royalties and Logging and Miscellaneous Deposit Account (LMDA) for all forest plantations amounting about 45% of the forest royalties to service silvicultural and road maintenance activities in the plantations, has been an incentive to the sector and contributed significantly to improved forest management.

A number of initiatives are being attempted towards increasing internal revenue from the forest products and services, increasing the financing from other local stakeholders mainly the private sector and local governments. Private sector's contribution would require an effective banking system and measures to minimize investment risks. Financing NFP programmes will as well require improved country's absorptive capacity to make the sector wide approach work.

The NFP aims at introducing a sector programme approach with partnership of all stakeholders. This is intended to improve the sectoral management through enhanced capacity and rationalization of resource use and doing away with piecemeal management interventions. The characteristics of the Sector Wide Approach are shown in Box 9.1.

Box 9.1 Characteristics of Sector Wide Approaches (SWAp)

Sector wide approaches are viewed as processes, which ultimately aim at achieving the fo

- all significant funding supports a single national sector policy and expenditure programme
- the government leads and owns the process and its implementation
- common procedures are adopted across the sector by government and donors
- government procedures are used to disburse and account for all funds

The move from project-based assistance towards a sector programme is often a gradual process requiring strong government leadership and the collaboration of a core group of like-minded donors. A fully-fledged sector approach demands a relatively high level of macroeconomic and budget management capacity as well as accountability and transparency f

Traditional sector support programmes, e.g. those used in health and education, are designed mainly for improving the service delivery capacity of government institutions at various levels. In a productive sector such as agriculture or forestry, a sector programme financing structure needs to include mechanisms to ensure the full participation of the civil society and the private sector. This requires the setting up of specific national and/or decentralised mechanisms, such as conservation endowments, funds for the payment for environmental services, and credit funds, or the strengthening of such funding mechanisms, which may exist.

The development of credit facilities will benefit potential investors in the forest industry in medium or long term. The forest sector in this aspect will have to work in close collaboration with private sector, government and private financial institutions to ensure that the right mechanisms are in place.

10. CROSS SECTORAL IMPLICATIONS AND PARTNERSHIPS

Forestry sector, just as many other land use sectors, has both vertical and horizontal relationships with other sectors, institutions and organizations. Sustainable forest management is impacted by a number of cross-sectoral issues both at management and institutional levels, which require new partnerships to find new innovative solutions.

10.1 Participatory Forest Management and Gender Mainstreaming

Gender balanced Participatory forest management is emerging as a viable management option by involving relevant stakeholders. Noting the traditional management approaches where the forest sector alienated other managers, this new approach will be motivating and establishing clear benefits e.g. increased income generation, employment, increased productivity to local communities, private sector and other stakeholders and taking on board gender considerations. Key stakeholders include PO-RALG, Ministry of Community Development, Women and Children Affairs (MCDWCA), Ministry of Agriculture and Food Security and development partners. At the field level, key stakeholders include communities, private sector, CBOs, NGOs

10.2 Biodiversity Conservation and Water Resources Management

Conservation of biological diversity is a cross cutting issue. This will require cross-sectoral collaboration in terms of creating awareness on their values for effective management in all land development aspects. Provision of appropriate mechanisms for ensuring this is important in terms of protecting key biodiversity sites/habitats with endangered species and management approaches including use of local knowledge. Most of the highland closed forests serve also as water catchment sources that serve both domestic and industrial water supply including hydropower generation. Collaborative management in these areas with all beneficiaries is crucial. Key stakeholders include Division of Environment, NEMC, Wildlife Division of the MNRT, Ministry of Water and Livestock Development, Water Authorities, Ministry of Energy and Minerals, Tanzania Electric Supply Company (TANESCO), communities, private sector, CBOs, NGOs and Development partners.

10.3 Land Use Issues

Forest degradation has been a result of among other things, insecure land tenure resulting from absence of land use planning. Cross sectoral requirements here include definition of land use and security of tenure for various forestlands and provision of property rights to motivate local communities and private sector to conserve and manage forests and trees on the general lands. In the mining sector, issues related to forest degradation resulting from conflicts in land use for mining activities are critical. Adoption of gender sensitive participatory land use approaches is important. Key stakeholders include Ministry of Lands and Urban Settlement, Ministry of Energy and Minerals, NLUPC, development partners, communities, private sector, CBOs and NGOs.

10.4 Technology Development and Energy

Forest industries are faced with low production and poor quality of products as a result of obsolete and inappropriate technology. The need for facilitating development and involvement of private sector in collaboration with other relevant sectors and institutions including the private financial institutions is key in reversing this weakness. Development and innovation of affordable alternative sources of energy especially for the rural and urban poor communities is also key for woodfuel that constitutes about 92% of the energy used in the country. Key stakeholders include Ministry of Energy and Minerals, Ministry of Science and Technology, Commission of Science and Technology and respective research institutions, development partners, communities, private sector, CBOs and NGOs.

10.5 Infrastructure

Most of the forest resources in the country are located in remote areas with poor infrastructure, mainly roads and information and communication technology. Access to the raw materials and availability of the necessary facilities such as electricity would require collaboration with other sectors such as the Ministry of Communication and District Councils, which are responsible for rural roads. Key stakeholders include Ministry of Communication, Ministry of Works, Ministry of Energy and Minerals, TANESCO, development partners, communities, private sector, CBOs and NGOs.

10.6 Creating an Enabling Environment for Private Sector Involvement

Effective development of the private sector in forestry requires establishing efficient regulatory procedures in terms of forestland development and trade. This will require developing concessions, leases and other management contracts as provided for under the Forest Act and Land Act. Overlaps in some land use regulations such as those related to mining, wildlife management, agricultural development and forest related trade need be harmonized. Also the forest products have to be competitive in the local and export markets in relation to competing materials. Present production costs of forest industries are high especially power tariffs, royalties and other charges especially in hardwood species. Key stakeholders here include Ministry of Energy and Minerals, TANESCO, Wildlife Division, Ministry of Laws and Constitutional Affairs, Ministry of Trade and Commerce, Board of External Trade (BET), development partners, communities, private sector, CBOs and NGOs.

10.7 Human Resources and Health

The overall spread of AIDS in the country has led to a decline in male and female forest staff. The sector needs to promote awareness in collaboration with other stakeholders in terms of instituting behavioural change to reduce the spread of AIDS/HIV. Medicinal plants from natural forests play a key role in the health sector where about 70% of the population especially in the rural areas use traditional medicines. Collaborative management of sites of useful species and research on the usefulness of plant species for plant-based medicines is crucial.

As decentralization, privatization and institutional reforms goes on, management of forest resources will be impacted from these processes. Close collaboration with all institutions involved will form a basis for strengthening future forest management in terms of establishment of executive agencies and efficient local governments. Also closer collaboration with different institutions in the forest sector, to develop curricula and skills for the forest industry. Key stakeholders are the Ministry of Health, research institutions, development partners, communities, private sector, CBOs, NGOs and traditional healers. Others are the Civil Service Department, IPC and training institutions.

10.8 Inter/Intra Sectoral Co-ordination and Cooperation

Cross-sectoral issues will be dealt with through strengthening intersectoral and stakeholders' coordination including the development partners, which will require development of new mechanisms to implement SFM. This will involve increasing partnerships and investments in forestry-based industry through involvement of the private sector, tapping financial sources for forest management and conservation through local and international opportunities for biodiversity conservation under the CBD and CCD. Mechanisms for financing include establishment of funding mechanisms such as "Basket Funding", "Forest Fund". Key stakeholders here include all development partners, all related sectors, institutions and organizations.

11. EXPECTED IMPACTS AT THE NATIONAL AND LOCAL LEVELS

11.1 Expected Benefits and Impacts at National and Local Levels

Effective forestland management is key to sustainable agricultural production, water supplies and production and supply of forest products and services. Ensured effective forests management will therefore contribute to poverty alleviation and growth in the national economy. See Box 11.1.

Box 11.1 Expected Contribution of Increased Production and Exports from Forest Products

- Estimated contribution of the forest products to the GDP is about 2% and could even be doubled by 2010, if export production grows at 5 to 10% yearly.
- Employment provided by the forest sector is 3% of paid labour and even a bigger number is employed in the informal forestry related activities.
- With increased exports of different forest products, employment can be expected to grow considerably.
- Export earnings from forest products have fluctuated in last five years from 2.5 to 14.1 million USD yearly; this is expected to grow 5-10% yearly.
- Major export products are: timber, carvings, floorings, tree seeds and bee products.
- Especially some plantations (softwoods, eucalypts and teak) provide good opportunities for increased export earnings.
- Exports of hardwood products can be expanded, if carried out in a sustainable manner e.g., by using forest certification.
- Import substitution of such products as paper and paperboard, plywood and fibreboard will increase the net export earnings from forest products.
- Presently yearly imports of paper and paperboard are in range of 35,000 to 40,000 tons.
- Also bee products provide good opportunities for increased export earnings (for details see the National Beekeeping Programme).

The major benefits which are likely to result from increased community and private sector participation in the management and more sustainable utilization of plantation and natural forests and the respective expansion and exports of the mechanical and chemical forest industries and NWFPs are:

- Better recognition of the needs and aspirations of local communities as stakeholders and joint forest owners in natural and plantation forests where land pressure is an issue
- Poverty reduction through increased income generation
- Improved management of forests through cost and benefit sharing
- Greater certainty of tenure and wood supply to encourage investment in forestry and forest industries

- In accordance with plantation development and utilization reduced pressure on indigenous forests for the supply of timber products
- Eased budgetary pressure on Government
- Increased export earnings and employment and import substitution
- Attracting possible foreign investment and technology to the sector
- New career and training options for staff currently employed by FBD and PO-RALG.

More sustainable supply and pricing of woodfuel, as well as more efficient utilization of firewood and charcoal stoves and charcoal production technologies will have many positive impacts at the national and local levels:

- Increased royalty revenue from woodfuel to the Government
- Increased income generation opportunities for selling firewood from woodlots
- Decline in encroachment of forest reserves and general lands
- Reduction of time used in firewood collecting
- Reducing harmful household smoke exposure
- Reducing expenditure on woodfuel

More efficient utilization and marketing of other NWFPs is going to have several positive impacts, especially at the local levels, where income-generation and employment opportunities will improve. Especially more efficient community involvement in supply of different NWFPs and services can increase employment opportunities and cash income. With the help of increased usage of edible NWFPs food security can be improved.

Forest Biodiversity and Water Catchment Protection

In the long run, improved biodiversity coordination and cooperation between different stakeholders, financially and technically, can be expected to result in better maintenance of biodiversity values on the forest reserves/public lands, in terms of loss and degradation of forest cover and of ecosystems and species, respectively; in better awareness and appreciation of biodiversity values on forest and woodlands; in increasing involvement of the private sector and local communities in conservation; and in increased support for training of forestry professionals. Also research on the different aspects (including socio-economics) of forests biodiversity will be strengthened. Strengthened watershed management is expected *inter alia* to improve hydrological balance of the catchment areas; increase extension services to local communities; promote sustainable agriculture; and share costs of watershed management between commercial beneficiaries.

Annex 1: Building Blocks of NFP Vision

The key building blocks of the NFP Vision are shown in Fig.1.2 (See Ch.1.2). The following governmental directions, current and related trends and the MNRT Vision derived from the Government Vision 2025 have guided the establishment of the vision and helped in establishing the Forest Policy area programmes:

Government Directions

The government directions relevant to implementation of the Forest and Beekeeping Policies are:

- Decentralization of management of natural resources
- Privatization of management functions
- Creating enabling environment for gender sensitive participation of relevant stakeholders

Current and Related Trends

Local and global trends related to implementation of policies are:

- Collaboration with relevant partners
- Decentralization of management functions
- Review of laws/regulations
- Commercialization and self- financing
- Poverty alleviation
- Biodiversity conservation
- Involvement of women in decision making and implementation of programmes
- Environmental concerns – climate change
- Sustainable forests management (Criteria and Indicators)
- Integrated resources planning
- Globalization and regionalization cross border issues.

Implications of the National 2025 Vision to Ministry of Natural Resources and Tourism

The vision for the Ministry of Natural Resources and Tourism to which the policies address are:

- To formulate policy and monitor its implementation
- Regulate and control for sustainable utilization of natural resources
- To promote private sector and gender balanced community participation in sustainable management.
- To undertake protection of natural resources
- To support the undertaking of applied/strategic research on natural resources so as to contribute to strategic planning
- To regulate and promote tourism

Commonality of Government Intentions and Current and Related Trends

In light of the above aspects, common ground of government and contextual trends were developed as follows: -

- Reversing current trends in the loss and degradation of environment, resources (forests, freshwater, climate, soils, biodiversity, fisheries).
- Integrated resource planning and coordination.
- Review of laws and regulations.
- Decentralization of management functions
- Promotion of eco-tourism
- Commercialization of production functions
- Undertaking research
- Collaborative management
- Monitoring and evaluation of programmes
- Gender issues consideration
- Globalization, regionalization and cross-border issues
- Creating enabling environment for gender balanced stakeholders participation

Annex 2: Core Strategic Planning in Participatory and Consultative Process

Core Strategic Planning in Participatory and gender sensitive Consultative Process has proceeded through the following major steps:

Step 1. January-March, 2000

A forest sector analysis by four Forest Policy areas seeking deeper understanding of major issues, constraints and opportunities and relationships with other sectors including the gaps in knowledge: through status and visions reports and participatory and expert consultations.

Step 2. February-April, 2000

Conducting National Stakeholders Orientation Workshops in four Forest Policy areas, seeking experiences and feedback on the baseline issues to be considered in the NFP process and in developing the strategies for the Forest Policy areas.

Step 3. June 2000

Categorizing and redefining the forestry issues raised in the Orientation Workshops with a view of providing more focus on the priority issues for the formulation of strategies and programmes.

Step 4. June-August, 2000

Conducting a Baseline Study and a National Workshop on Best Practices and Lessons Learned from the consultative processes in forestry, which could contribute in the designing of NFP and help to tackle challenges in such gender sensitive participatory processes.

Step 5. August-September, 2000

Conducting local level consultative workshops in six selected regions, which represent major ecological zones, to facilitate transparent, gender sensitive participatory process to get views from the grassroots into the NFP strategies and programmes.

Step 6. June-December, 2000

Conducting special studies on areas which need in-depth analyses and where information gaps exist, such as:

- The Present Status and Future Prospects of Mechanical and Chemical Industries
- Forestland Tenure Systems in Tanzania
- Woodfuel Strategy Options
- The Role of Non-wood Forest Products (NWFP) in Food Security and Income Generation
- Benefit and Cost Sharing in Joint Forest Management (JFM) and in Community-Based Forest Management (CBFM)

- Clarification of the Role of Local Governments in Implementation of Forestry Activities at Local Level
- Gender Involvement in Forestry
- Integration of Forestry Research Master Plan into to the National Forest Programme
- Financing in Forestry

Step 7. October-November, 2000

Further work with major forestry issues, their prioritization and respective key expected outputs by four Forest Policy areas. Organizing a National Strategies and Priority Actions Workshop to inform the key stakeholders on the NFP process and to seek for their views on the key outputs and performance indicators and to prioritize the key issues by Forest Policy area. These form the basis for NFP development programmes.

Step 8. December, 2000-February, 2001

Preparing the NFP Framework Document focusing on priority issues, strategies and development programmes, which have been derived from workshops, consultations and studies done. Seminar on issues concerning gender involvement in forestry. Establishing forestry issue-related development programmes, creating sub-programmes and finding strategies and mechanisms for their implementation.

Step 9. March 2001

Finalizing the NFP Framework Document and starting the adoption of the NFP document by the Government and other stakeholders.

Annex 3: Forest Policy Statements

Forest land Management

Policy statement (1): To ensure sustainable supply of forest products and services and environmental conservation, all types of forest reserves will be managed for production and/or protection based on sustainable management objectives defined for each forest reserve. The management of all types of forest reserves will be based on forest management plans.

Policy statement (2): To ensure the efficiency in forest management and conservation, the central government forest reserves will be managed by one or several specialised executive agencies or by the private sector. Forest reserves of national strategic importance may remain under the management of the central government until executive agencies have developed sufficient and proven capacity for their management. Forest reserves under local governments will remain under their management or may be managed by specialised executive agencies or by the private sector.

Policy statement (3): To enable participation of all stakeholders in forest management and conservation, joint management agreements, with appropriate user rights and benefits, will be established. The agreement will be between the central government, specialised executive agencies, private sector or local governments, as appropriate in each case, and organised local communities or other organisations of people living adjacent to the forest.

Policy statement (4): To enable sustainable management of industrial plantations, one or several specialised executive agencies or the private sector will manage these plantations on a fully commercial basis through appropriate lease, concession or joint management agreements.

Policy statement (5): To enable sustainable management of forests on public lands, clear ownership for all forests and trees on those lands will be defined. The allocation of forests and their management responsibility to villages, private individuals or to the government will be promoted. Central, local and village governments may demarcate and establish new forest reserves.

Policy statement (6): Village forest reserves will be managed by the village governments or other entities designated by village governments for this purpose. They will be managed for production and/or protection based on sustainable management objectives defined for each forest reserve. The management will be based on forest management plans.

Policy statement (7): Private and community forestry activities will be supported through harmonised extension service and financial incentives. The extension package and incentives will be designed in a gender sensitive manner.

Forest-based Industry and Products

Policy statement (8): To enable the mechanical and chemical wood industry to plan its investments, information on raw material base will be ascertained through periodical resource assessments, and made available to the industry. The rehabilitation of existing technology and establishment of efficient forest industries using appropriate technology will be promoted.

Policy statement (9): Establishment of private woodlots and plantations for woodfuel production will be encouraged and supported through research, extension services and financial incentives.

Policy statement (10): The manufacturing of artisanal wood-based products will be encouraged through resource information and promotion of other suitable lesser-used species, training and extension services as well as research and product development.

Policy statement (11): A beekeeping component will be incorporated in the management plans of forest reserves. Beekeeping resource assessment will be intensified.

Policy statement (12): Private sector and community involvement in the development of forest-based eco-tourism will be encouraged. This will be linked with the overall tourism development and an appropriate legal framework established.

Policy statement (13): Investments in non-wood forest products industry, product development and marketing will be encouraged in order to utilise the full potential as well as to domesticate and commercialise the products with high demand.

Policy statement (14): Internal trade and exports of forest produce, excluding those regulated by international agreements of which Tanzania is a party, will be promoted. To prevent forest destruction and degradation through commercial exploitation, trade of certain forest products may be regulated.

Ecosystem conservation and management

Policy statement (15): New forest reserves for biodiversity conservation will be established in areas of high biodiversity value. Forest reserves with protection objectives of national strategic importance may be declared as nature reserves.

Policy statement (16): Biodiversity conservation and management will be included in the management plans for all protection forests. Involvement of local communities and other stakeholders in conservation and management will be encouraged through joint management agreements.

Policy statement (17): Biodiversity research and information dissemination will be strengthened in order to improve biodiversity conservation and management.

Policy statement (18): Biodiversity conservation will be incorporated in the management regimes of natural production forests and plantations. Biodiversity conservation and management guidelines will be incorporated in the management plans. The replacement of natural forests by exotic plantations will be minimised.

Policy statement (19): New catchment forest reserves for watershed management and soil conservation will be established in critical watershed areas.

Policy statement (20): Watershed management and soil conservation will be included in the management plans for all protection and production forests. Involvement of local communities and other stakeholders in watershed management and soil conservation will be encouraged through joint management agreements.

Policy statement (21): Research and information dissemination will be strengthened in order to improve watershed management and soil conservation.

Policy statement (22): Management of forest reserves will incorporate wildlife conservation. Wildlife resource assessment will be intensified.

Policy statement (23): Environmental impact assessment will be required for the investments which convert forest land to other land use or may cause potential damage to the forest environment.

Institutions and Human Resources

Policy statement (24): The policy analysis and planning capacity within the forest sector will be strengthened with the emphasis on strategic planning and coordination. A broad based consultative group with advisory functions will be established to guide on policy-related cross-sectoral issues.

Policy statement (25): Legislation for the forest sector will be periodically updated and harmonised with the legislation of other related sectors.

Policy statement (26): National criteria and indicators for sustainable forest management will be developed. Management guidelines for different forest types will be established on the basis of these criteria and indicators, and management plans for all types of forest reserves prepared accordingly.

Policy statement (27): Royalties and other fees for forest products and services will be determined to reflect their economic values. Revenue collection will be made more effective.

Policy statement (28): Pricing of forest products and services sold from central and local government reserves will be determined based on free market values.

Policy statement (29): The role of the sectoral administration will focus on policy development, regulation, monitoring and facilitation. Decentralisation of forest resource management responsibilities will be promoted. Specialist technical and training backup services as well as information dissemination and sharing will be strengthened.

Policy statement (30): The capacity of the local governments to administer and manage forest resources will be strengthened and a coordination mechanism between the local and central governments established.

Policy statement (31): Cross-sectoral coordination between the forest administration and other government institutions will be promoted at all levels.

Policy statement (32): Forestry research and development will be promoted and strengthened as the basis for sustainable development and management of the forest sector. Financial resources for problem-oriented research and development programmes will be provided through cost-sharing mechanisms and establishment of research funds.

Policy statement (33): To ensure adequate professional, technical and specialist staff in the sector, forestry training institutions will be strengthened. Specialist training will be promoted.

Policy statement (34): To facilitate manpower development a regular demand-driven manpower needs assessment, curricula review and training planning will be conducted.

Policy statement (35): To ensure increased awareness and skills amongst the people on sustainable management of forest resources, the forestry extension services will be strengthened.

Policy statement (36): Forestry related extension messages delivered by different natural resources management sectors and other related sectors will be harmonised through integrated planning, research and training.

Policy statement (37): Coordination and cooperation between the forest sector and NGOs will be promoted.

Policy statement (38) An enabling environment and regulatory framework for the private sector involvement in forestry will be created through secured raw material procurement, training, research, and transfer of technology. Incentives and credit facilities for investments will be promoted and joint ventures will be encouraged.

Policy statement (39): Local communities will be encouraged to participate in forestry activities. Clearly defined forestland and tree tenure rights will be instituted for local communities, including both men and women.

Policy statement (40): New and innovative sectoral financing mechanisms will be developed and directed to the key functions and stakeholders of the forest sector.

Policy statement (41): To avoid parallel and overlapping programmes, consultation with development partners in the context of overall sectoral coordination of projects or programmes will be strengthened.

Annex 4: Summary Biodiversity Values of the Main Ecological Zones of Tanzania

Background.

The material presented here is largely derived from a forthcoming review of the Terrestrial Ecoregions of Africa and its islands (WWF in prep). Where more detailed information is available, for example for the Eastern Arc Mountains and for the Coastal Forests, then these are also included. Main literature sources used are also listed. For each of the five main zones a brief description, summary of the biodiversity values, and an indication of the most important sites are given. Some of the information on sites is derived from a forthcoming directory on the Important Bird Areas of Tanzania (see bibliography).

THE MOIST FOREST ZONE

This zone is found only around the shores of Lake Victoria. It forms a part of a larger ecoregion, which covers much of southern and central Uganda. The number of endemic species in this ecoregion is not particularly high, although species richness is high for all groups (see Table). Biologically the most important habitats in the Tanzanian portion of the ecoregion are the *Podocarpus* swamp forests and associated habitat mosaics of the Minziro area of the western Lake Victoria. In this area there are a large number of species more typical of the West and Central African forest zones, which reach their easternmost limits in this part of Tanzania. Hence although there are a large number of species, which have their only Tanzanian localities here, they are in fact widespread in Central Africa. Minziro is one of the Sango Bay forests under the current UNDP/GEF “reducing biodiversity loss at cross-border sites” project. The long term aim of this initiative is to identify, monitor and protect habitats at key transborder localities within the three East African states. Minziro reaches to the Uganda/Tanzania border and north of that there is the contiguous Malabimabo Forest Reserve in Uganda.

COASTAL FOREST AND THICKET

The zone is part of a coastal ecoregion, which ranges from Somalia (lower Jubba River) down the coast of Tanzania and then into Mozambique. It also covers the offshore islands of Pemba, Zanzibar and Mafia. The number of endemic species in this ecoregion is exceptional in world terms and together with the Eastern Arc Mountains these areas form one of the worlds top 25 areas for biodiversity conservation (Mittermeier *et al.*, 1999; Burgess and Clarke, 2000). Biologically, the most important habitats within the ecoregion are the remnant patches of lowland forest, often on raised hills where they can receive slightly higher rainfall. However, there are also endemic species in the grassland and bushland habitats of the ecoregion (Table 1). In Tanzania the most important lowland forest patches are found within Forest Reserves under Local Authority management. There are no National Parks and the management input to the Forest Reserves is generally insufficient. The areas of highest importance requiring conservation investment are: the lowland forests around Tanga town, those of the Pugu Hills outside Dar es Salaam, of the Matumbi Hills south of the Rufiji river, and of the Rondo and Litipo areas of southern Tanzania. Forest remnants on Pemba, Zanzibar and Mafia are also important.

MONTANE FORESTS

This zone encompasses parts of four different ecoergions according to WWF (in prep). These are the Eastern Arc Mountains, Albertine Rift Mountains, the Kenya-Tanzania volcanic mountains and the southern Tanzania-Malawi Mountains.

The Eastern Arc Mountains running in an Arc from the North Pare Mountains, through South Pare, West and East Usambaras, Nguru, Uluguru, Ukaguru, Rubeho and Udzungwa ranges. The biodiversity value of the Eastern Arc, in terms of the total number of endemic species, and the density of these endemics, is exceptional in world terms (see Table 1). The majority of the endemic species are montane forest specialists, although a few are species of open grasslands and bushlands at higher altitudes (Lovett and Wasser, 1993; Burgess *et al.*, 1998). Only part of the Udzungwa Mountains is protected as a National Park, with the great majority of the other remaining forest areas being found in Catchment Forest Reserves. These reserves are providing a vital function in the conservation of biodiversity in Tanzania, which needs to be recognised and supported.

In Tanzania the Albertine Rift ecoregion is only found as outliers in the Mahale mountains and Mount Kungwe in the far west of the country, close to Lake Tanganyika. Most of the ecoregion is found in the mountains, which form the border between the Democratic Republic of Congo and Uganda, Burundi and Rwanda. The biodiversity importance of the Albertine Rift as a whole is very high in world terms, although the two portions of this ecoregion found in Tanzania are not as rich as other parts. Nevertheless they are still highly important in terms of their biodiversity importance (see Table 1). The most important habitats for the endemic species are the montane forests and the montane grasslands. Part of this ecoregion in Tanzania is protected within the Mahale Mountains National Park, whereas the Mt Kungwe habitats are protected within Forest Reserves.

In Tanzania the Kenya-Tanzania volcanic mountains ecoregion includes the highland areas of Ngorongoro, Mountains Meru and Kilimanjaro of northern Tanzania. Similar volcanic mountains exist in Kenya. Because these mountains are only a few million years old they have not evolved many endemic species and hence their value is not as great as the Eastern Arc or Albertine Rift mountains (Table 1). The endemic species are mainly found in the montane grasslands and scrubby habitats, with a few also in the forests. The most important areas of the ecoregion are protected in National Parks, the Ngorongoro Conservation Area, and Forest Reserves. This ecoregion is the best protected of the forested ecoregions in Tanzania.

The southern Tanzania to Malawi Mountains ecoregion contains the Southern Highlands of Tanzania. They are separated from the Eastern Arc because they have a climatic regime controlled by the large Rift Valley Lakes and not by the Indian Ocean. There are a number of endemic species (Table 1), which are found in both the montane forests, and the montane grasslands of the ecoregion. The most important areas here include Mt Rungwe (Mporoto Ridge F R.) and the forest reserves of the Southern Highlands and Livingstone Mountains. As the majority of the forest remaining is found within Forest Reserves, and there are no National Parks in the area, then conservation investment into the Forestry Department is required to ensure the conservation of the biodiversity of this forest type in Tanzania.

ACACIA-SAVANNA AND GRASSLANDS

The *Acacia*-Savannah and Grasslands are found covering the Serengeti area to Kilimanjaro and then south to central Tanzania in the Dodoma area. The habitat is characterised by short grasslands and *Acacia* trees with numerous small rocky outcrops. There are relatively few endemic species found in this ecoregion, although endemism is found in animals of the Serengeti National Park area (especially in birds: Stattersfield *et al.*, 1998) and also is present in the plants of the ecoregion. The major biological importance of the ecoregions is in terms of the huge numbers of large mammals in the ecoregion, especially within the greater Serengeti area (Table 1). These species are still able to undertake seasonal migrations and these are some of the most intact remaining in the world. The protected status of the ecoregion is quite good as there are several National Parks, Game Reserves and Forest Reserves covering the most important parts of the area. However, hunting for meat and agricultural conversion of the lands outside these reserves is an issue for the long-term conservation of the area.

ACACIA-COMMIPHORA THORNBUSH

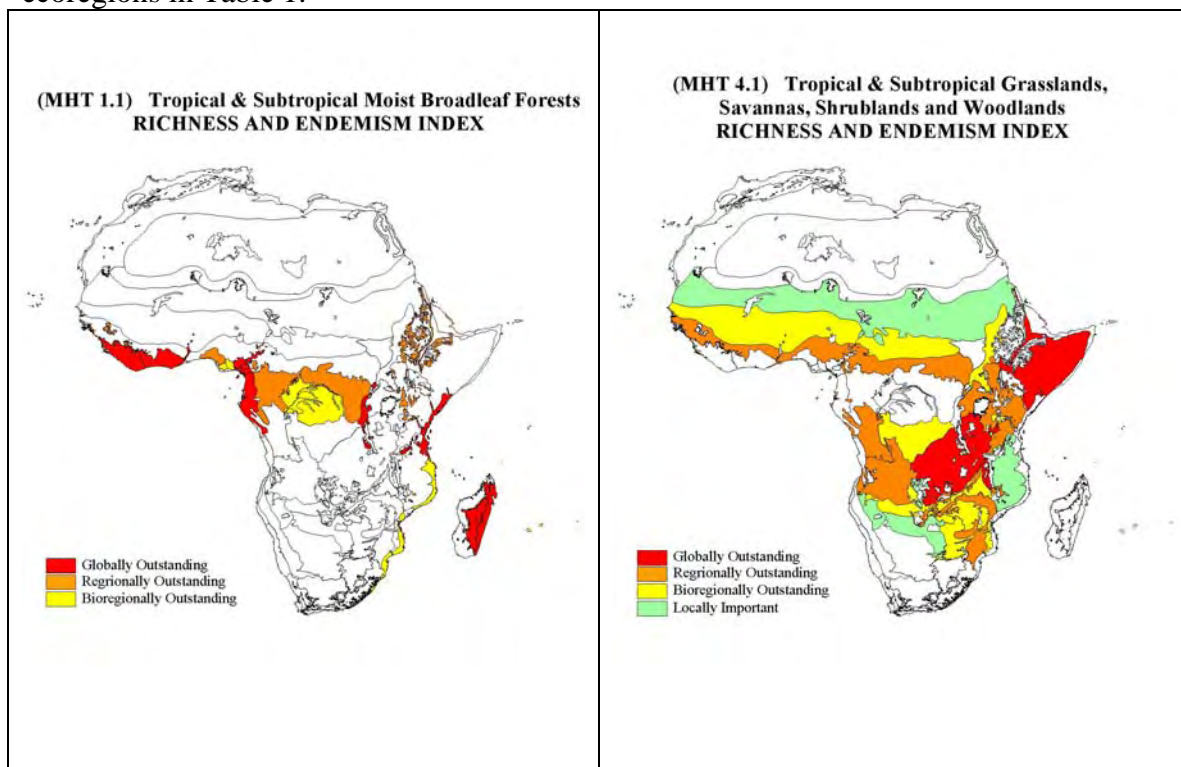
This ecoregion is found in Kenya and Tanzania. In Tanzania it ranges from east of Kilimanjaro to coastal Tanga, and then inland of the coast to just south of the East Usambara Mountains. An elongate tongue of the habitat also extends as an arid corridor as far southwest as Ruaha National Park through the central part of Tanzania. There are relatively few endemic vertebrates in this ecoregion (see Table 1), but there is endemism in the plants and invertebrates. However, the main biological value of the area is not in endemic species, but for populations of large mammals. However, these habitats are of less importance to large mammals than the *Acacia*-Savanna woodlands. This lower importance for large mammals is reflected in a lower number of National Parks, Game Reserves and Forest Reserves within this ecoregion. However there are Game Controlled areas and so-called 'Open Areas' within the ecoregion. Much of the area is open country with very low human populations due to drought and tsetse flies, and only sparse human populations mainly of Masai pastoralists are found.

BRACHYSTEGLIA-JUBERNADIA SAVANNA WOODLAND

This ecoregion covers a part of the vast Miombo woodlands of southern and eastern Tanzania, which extend down through Zambia and into Mozambique, Zimbabwe and the SE corner of the Democratic Republic of Congo. There are few endemic species confined to smaller portions of this vast area, although throughout the Miombo woodlands several hundred species of plants are endemic and there are also endemic animals (mainly south of Tanzania) (see Table 1). The main biological importance is in the numbers of large mammals, which are found, although the diversity and density of these is less than either the *Acacia* or the *Acacia-Commiphora* ecoregions in northern Tanzania. Large portions of the ecoregion are protected within Forest Reserves, Game Reserves and Game Controlled Areas. Some of these are overlapping (especially in western Tanzania).

Overall Values

Analysis of species richness and numbers of endemic species within the different ecoregions of Africa and its islands (WWF in prep) allows a set of priority ecoregions to be assessed. For this analysis the major biomes (deserts, savannas, forests, wetlands, montane moorlands, mangroves etc) were analysed separately. Presented here is the ranked priority ecoregions in the forest biome and the woodland-woodland biome. These graphics are derived from data summarised for the Tanzanian ecoregions in Table 1.



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Table 1. Species richness and species endemism in the ecoregions found in Tanzania (data from WWF, in prep).

Ecoregion Name	Bird Richness	Bird Endemics	Amphibian Richness	Amphibian Endemics	Reptile Richness	Reptile Endemics	Mammal Richness	Mammal Endemics	Invertebrate Richness **	Invertebrate Endemism **	Plant Richness **	Plant Endemism **	Vertebrate Richness	Vertebrate Endemism	Migratory Phenomena	Notes
Albertine Rift Montane Forest	700	30	65	33	130	11	220	25	H	H	H	H	1100	99		A
East African Montane Forest	600	4	17	2	62	10	180	8	H	VH	M	L	850	24		B
Eastern Arc Forest	540	15	80	25	85	27	160	6	H	VH	VH	VH	860	73		C
Northern Zanzibar-Inhambane Coastal Forest Mosaic	550	11	55	3	192	40	170	8	H	H	VH	H	970	60		D
Victoria Basin Forest-Savanna Mosaic	600	1	30	2	110	3	210	3	H	M	H	L	960	9		E
Southern Acacia-Commiphora Bushland and Thicket	590	2	17	0	90	3	180	0	H	L	H	H	880	5	GO	F
Serengeti Volcanic Grassland	430	2	11	0	65	1	130	0	H	L	M	L	640	3	GO	G
Central Zambezian Miombo Woodland	690	2	85	13	190	19	230	2	M	L	M	H	1200	36	GO	H

** VH=very high; H=high; M=medium; L=low; GO=Globally important for migrations.

Notes

A = Most of the endemics for this ecoregion are found in Uganda, Rwanda, Burundi and DRC. Only around 10% of the species are found in Tanzania.

B = Some of the endemics for this ecoregion are found in Kenya (Mt Kenya) and Uganda (Mt Elgon). Around 50% of the species are found in Tanzania.

C = Almost all of these endemics are found in Tanzania (only few in Taita Hills of Kenya). Around 95% of the species are found in Tanzania.

D = Some of these endemics are also found in Southern Kenya coastal area. Around 90% of the species are found in Tanzania.

E = Some of the few endemics in this ecoregion are found in Uganda. Around 90% of the species are found in Tanzania.

F = These endemics are all found in Tanzania.

G = These endemics are all found in Tanzania.

H = Most of these endemics are found outside Tanzania, mainly in Upemba area of DRC. Around 20% of the species are found in Tanzania.

Annex 5 List of NFP Publications

WORKSHOP/SEMINAR PROCEEDINGS

Proceedings of National Orientation Workshops

- National Forest Programme Workshop Proceedings on the Status of Ecosystem Conservation and Management in Tanzania and Vision for the Future, New Africa Hotel, Dar es Salaam, 29th February to 1st March, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- National Forest Programme Workshop Proceedings on the Status of Forest Land Management in Tanzania and Vision for the Future, New Africa Hotel, Dar es Salaam, 14th to 15th March, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- National Forest Programme Workshop Proceedings on the Status of Forest-based Industry and Products in Tanzania and Vision for the Future, New Africa Hotel, Dar es Salaam, 28th to 29th March, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- National Forest Programme Workshop Proceedings on the Status of Institutions and Human resources in Tanzania and Vision for the Future, New Africa Hotel, Dar es Salaam, 4th to 5th April, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- National Forest Programme Workshop Proceedings on the Status of Beekeeping in Tanzania and Vision for the Future, New Africa Hotel, Dar es Salaam, 18th to 19th April, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Proceedings of the Task Force Coordination Workshop

- Proceedings of the NFP/NBP Task Force Issues Prioritization Workshop, Oasis Hotel-Morogoro, 5th to 9th June, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Proceedings of National Strategies and Priority Actions Workshop

- Proceedings of the National Strategies and Priority Actions Workshop, Whitesands Hotel, Dar es Salaam, 7th to 8th November, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Proceedings of Gender Involvement Seminar

- Proceedings of the Gender Involvement Seminar, Peacock Hotel, Dar es Salaam, 28th February, 2001, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

BEST PRACTICES STUDY AND PROCEEDINGS OF LOCAL LEVEL CONSULTATIONS

Best Practices and Local Level Consultations

- Participatory Local Level Consultative Processes in Forestry: Best Practices and Lessons of Experience for Designing the National Forest Programme, Volume One by G.C.Kajembe and J.F.Kessy, August, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

- Proceedings for the Workshop on “Best Practices and Lessons of Experience on the Participatory Processes in Forestry in Tanzania”, Tanzania Episcopal Centre, Kurasini Dar es Salaam on 9th to 10th August, 2000, Volume Two by G.C.Kajembe and J.F.Kessy, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- Proceedings for six Local Level Consultations, Volume Three by G.C.Kajembe and J.F.Kessy, 2000, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

SPECIAL STUDIES

Financing Study

- Study on Financing in Forestry, November 2000, by J. Salmi and G.C. Monela, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Forest Industry Study

- The Present Status and Future Prospects of the Mechanical and Chemical Forest Industries in Tanzania, August 2000, by B.L.Kaduvage, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

NWFP Study

- The Role of Non-wood Forest Products in Food Security and Income Generation, December 2000, G.J.Kamwenda and S. Kway, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Gender Study

- Gender Involvement in Forestry, March/April, 2001 by E.E.Chingonikaya and G. Mkamba (edited by E.H. Mhina), Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Local Government Study

- Clarification of the Role of Local Governments in Implementation of Forestry Activities at Local Level, December 2000 by S.W.Mariki and N.P.Dabana, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Forestland Tenure Study

- Forestland Tenure Systems in Tanzania, January 2001, by G.K.Mango, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Woodfuel Study

- Woodfuel Strategy Options, February 2001 by B.K Kaale & Sawe E.N. Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Forestry Research Study

- Integration of Forestry Research Master Plan into the National Forest Programme, March 2001 by Muhando & S.Mariki, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Cost and Benefit Sharing Study

- Benefit and Cost Sharing in Joint Forest Management (JFM) and in Community-Based Forest Management (CBFM), March 2001 by S.W.Masayanyika & J.Mgoo, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

Beekeeping Studies

- Marketing of Honey and Beeswax January 2001 by E.N. Rutageruka and M.K. Mbalamwezi, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- Beekeeping in Cross-sectoral Areas, January 2001 by E.N. Kilon, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

WORKING PAPERS

- Biodiversity Values of the Main Ecological Zones of Tanzania, Summary Paper, January 2001 by N.Burgess, WWF, Tanzania.
- Gender Involvement in Forestry, Summary Paper, February 2001 by E.Mhina,, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- Benefit and Cost Sharing in Community-Based Forest Management (CBFM) and Joint Forest Management (JFM) Initiatives in Tanzania, Summary Paper, March 2001 by S.W.Masayanyika & J.Mgoo, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

NEWSLETTERS/HANDOUT

- National Forest Programme Newsletter in English and Swahili: September & November 2000 & January 2001, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.
- Handout on Forest/Beekeeping Policy Areas: Major Findings of Status Reports and Summary of Principal Issues Raised at Orientation Workshops, Forestry and Beekeeping Division, Dar es Salaam, Tanzania.

ANNEX 6 ONGOING PROJECTS AND THEIR MAIN AREAS OF SUPPORT

Project Name	Target Area	Donor	Period	Funding (mil.)	Main activities
Conservation of Lowland Coastal Forests	Zaraninge, Vikindu, Kazimzumbwi, Pugu, Matumbi forests	WWF/DF ID	1996-2001	-	<ul style="list-style-type: none"> • Lobbying and support to gazettement of Zaraninge, Mlola, Kiwengoma and some village forests • Support in agroforestry activities • Development of extension materials and training of communities
Udzungwa mountains Forest Management & Biodiversity Conservation	Iringa district	Danida	1999-2002	2.9 US\$	<ul style="list-style-type: none"> • Development of environmentally sustainable and equitable use and management of natural forests and other biodiversity for communities adjacent to Udzungwa Mountains ecosystem
MBOMIPA	Iringa district/ Wildlife Division	DFID	1998-2002	3.2 US\$	<ul style="list-style-type: none"> • Development of effective and sustainable natural resources management system focusing on wildlife management under community authority and responsibility
Mafia Island Marine Park	Mafia Island	WWF/DFID/NORAD	1999-2004	1.5 US\$	<ul style="list-style-type: none"> • Consolidating participatory management of the Mafia ecosystem that include both mangrove forests and fisheries resources. • Support in control of illegal harvesting, antidynamiting • Support to income generating activities to reduce pressure on dependence on the marine ecosystem
SADC Forest Colleges	SADC region	Finland	1997-2001	0.7 US\$	<ul style="list-style-type: none"> • Supporting forest colleges in Tanzania to secure capable skilled and motivated working staff
Participatory Management Guidelines	Countrywide	Danida	-	Pipeline	<ul style="list-style-type: none"> • Baseline studies on natural resources management • Formulation of guidelines • Implementation of guidelines (field testing)
Woodland Management	Lindi region	Danida	2000-2003	3.5 US\$	<ul style="list-style-type: none"> • Sustainable use and conservation of natural forest ecosystems in cooperation with communities
Community-based natural woodland management project (Phase I)	Iringa district	Danida	1999-2002	2.3 US\$	<ul style="list-style-type: none"> • Introduction and promotion of community based resource management
Management of Miombo Woodland	Miombo areas in SADC	EU/SADC	1999-2002	2.0 US\$	<ul style="list-style-type: none"> • Institutional arrangement for miombo management, policy influences and low impact harvesting
Regional Integrated project support (RIPS)	Mtwara and Lindi	Finland	1999-2005	14.8US\$	<ul style="list-style-type: none"> • Support to forest management at district level through involvement of local governments and communities, including creation of village forest reserve and collaborative management • Soil and water conservation • Marine environment protection in 3 coastal districts

Project Name	Target Area	Donor	Period	Funding (mil.)	Main activities
National Forest Programme	National	Finland	2000-2001	0.4 US\$	<ul style="list-style-type: none"> • Formulation of National Forest and Beekeeping Programmes
East Usambara Catchment Forests	East Usambaras Tanga	Finland/EU	1998-2001	3.1 US\$ (Finland) 1.9 US\$ (EU)	<ul style="list-style-type: none"> • Management of the Amani Nature Reserve • Management of Watersheds in the East Usambaras • Involving and supporting local communities in farm forestry and land management • Strengthening institutional capacity to plan and execute sustainable forest management practices • Strengthening research and monitoring of forest ecosystems
Natural Resources Management and Buffer Zone Development Programme (NRBZ)	FBD, Districts (Lushoto, Handeni, Mwanaga)	GTZ	1998-2000 (Phase II) 2001-2004 (Phase III)	DM 3.0 Provisional budget (DM 3.0)	<p>Phase II</p> <ul style="list-style-type: none"> • Improving administration and coordination capacities • Training of personnel • Review of Forest Policy and legislation and their operationalization • Supporting district administration planning and implementation <p>Phase III</p> <ul style="list-style-type: none"> • Improving technical and managerial skills • Capacity to coordinate implementation of Forest Policy • Support in organization and participation in International meetings • Operationalization of the forest legislation • Support in harmonizing revenue collection
Tanga Coastal Zone Conservation and Development		Ireland/IUCN	1998-2001?	3.2 Pounds	<ul style="list-style-type: none"> • Management of the Tanga region's coastal environment, in the three coastal districts • Development of sustainable community based management of natural resources in collaboration with relevant partners
Rufiji Delta and Flood Plain Management Project	Rufiji district	Netherlands / IUCN	1998-2002	4.0 US\$	<ul style="list-style-type: none"> • Capacity building • Ecosystems management • Biodiversity management • Community participation in natural resources management
Catchment Forest	Kilimanjaro, Arusha, Morogoro, Tanga regions	NORAD	1998-2001	2.45 US\$	<ul style="list-style-type: none"> • Management of watersheds • Undertaking participatory management of catchment forests • Carrying out extension services • Training of staff and villagers • Provision of facilities and infrastructure development
HASHI/ICRAF	Shinyanga	NORAD	1998-2001	1.5 US\$	<ul style="list-style-type: none"> • Development of Joint Natural Resources Management • Promotion of sustainable land use systems • Afforestation and soil conservation • Research and agroforestry development technologies • Training of staff and farmers
Mangrove	Coastal zone	NORAD	1998-2001	1.9 US\$	<ul style="list-style-type: none"> • Conservation of mangrove forests

Project Name	Target Area	Donor	Period	Funding (mil.)	Main activities
management					<ul style="list-style-type: none"> • Undertaking participatory management of mangrove forests • Training of staff and communities
Beekeeping Development	Selected districts in Tanga, Singida, Tabora & Kigoma regions	NORAD	1998-2001		<ul style="list-style-type: none"> • Support to communities, private beekeepers and societies in improved beekeeping; • Provision of appropriate facilities for processing and storage, • Assistance to marketing • Training of beekeepers
Ruvu Fuelwood	Kibaha district - Coast region	NORAD	1998-2001	0.65 US\$	<ul style="list-style-type: none"> • Support to Community-based fuelwood production
SAPU	FBD	SIDA	1997-2000	3.135 SEK	<ul style="list-style-type: none"> • Pilot commercialization of forest plantations • Natural forests management • Monitoring of management practices and development of village based management • Forest resources assessment • Development of appropriate extension strategies
Land Management Project	Babati, Kiteto and Simanjiro district in Arusha region	Sida	1997 -	4.7 US\$ annually	<ul style="list-style-type: none"> • Integrated land management focusing on forests management by the communities and local governments
Cross border biodiversity	Kenya, Uganda, Tanzania	UNDP/ GEF, UNEP	1999-2004	12.5 US\$	<ul style="list-style-type: none"> • Conservation of cross border biodiversity sites
Lake Victoria Environmental management project	Mwanza, Kagera and Mara regions; also involving Uganda and Kenya	WB/GEF	1997-2003	77.64 US\$	<ul style="list-style-type: none"> • Rehabilitation of the Lake Victoria ecosystem and its catchment area through involvement of the communities including afforestation and conservation of natural forests • Strengthening of extension services • Wetland management and other components
Educational programmes	various	Various donors	?	?	<ul style="list-style-type: none"> • Educational and conservation programmes
Support to Institute of Resource Assessment UDSM	UDSM	Various	-	-	<ul style="list-style-type: none"> • Activities related to assessment of land degradation • Remote sensing • Natural resources information development
Post graduate Training - SUA	Sokoine University of Agriculture	NORAD	1997-2001	10.5 US\$	<ul style="list-style-type: none"> • Support to research • Staff training and facilities • Post graduate training programme
Tanzania Forest Conservation and Management Project (TFCMP)	Countrywide	WB	-	Pipeline	<ul style="list-style-type: none"> • Institutional reforms (establishment of Forest Executive Agency) • Involvement and participation of the private sector in conservation and forestry development activities • Conservation and management of the Tanzania Eastern Arc Biodiversity resources

Annex 7: Logical Framework Matrices for the Forest programmes

The country's forest resources have a crucial role in the contribution towards poverty eradication for the rural poor, economic development and environmental conservation. The National Forest Programme, which is meant to implement the National Forest Policy, is in line with other related sectors and macro-economic policies focused towards this objective. The NFP attempts to set priority Development Programmes to be realised through strategies and actions developed in a consultative manner with the key stakeholders mainly, Local Governments, the private sector and individuals, NGOs and the international community.

**United Republic of Tanzania
Ministry of Natural Resources and Tourism
Forestry and Beekeeping Division**