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Experience of Implementing National Forest Programmes in NIGERIA

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Please note that the views expressed in this paper reflect those of the authors and should not be attributed to any of the institutions.

This paper has been minimally edited for clarity and style.

ACRONYMS.

ADB	African Development Bank
APCU	Afforestation Programme co-ordination unit
CBOs	Community Based Organisations
CCP	Country Capacity Project
CTA	Chief Technical Advisor
DBH	Diameter at Breast Height
DFID	Department for International Development
ECN	Energy Commission of Nigeria
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
FAO	Food and Agriculture Organisation
FDA	Federal Department of Agriculture
FDF	Federal Department of Forestry.
FDP	Forestry Development Programme
FEAP	Family Economic Advancement Programme
FEC	Federal Executive Council
FEPA	Federal Environmental Protection Agency
FIS	Forest Information System
FGN	Federal Government of Nigeria
FHI	Forest Herbarium Ibadan
FLD	Federal Livestock Department
FMANR	Federal Ministry of Agriculture and National Resources
FME	Federal Ministry of Environment
FORMECU	Forestry Management Evaluation and Coordinating Unit
FRIN	Forestry Research Institute of Nigeria
FRS	Forestry Resources Study
FTF	Forestry Trust Fund
GCE	General Certificate of Education
GEF	Global Environment Facility
GIS	Geographic Information System
HND	Higher National Diploma
ICR	Implementation Completion Report
IDA	International Development Agencies
IDIs	In- Depth- Interviews
IITA	International Institute for Tropical Agriculture
IPM	Integrated Pest Management
LGAs	Local Government Areas
LUPAG	Land Use Planning Agency
LUV	Land Use and Vegetation
MAI	Mean Annual Increment
MEMP	Micro-watershed and Environmental Management Programme
NAERLS	National Agricultural Extension Research and Liaison Services
NALDA	Nigeria Agricultural Land Development Authority
NAP	National Afforestation Programme
NCE	National Certificate of Education
NCE	National Council on Environmental
NCU	National Coordinating Unit (of the NFAP)
NCF	Nigerian Conservation Foundation
NEST	Nigerian Environmental Study/Action Team
NFAP	National Forestry Action Programme
NFDC	National Forestry Development Committee
NFP	National Forestry Programmes
NGOs	Non-Governmental Organisations
NISER	National Institute for Social and Economic Research
NTC	Nigerian Tobacco Company
NTFPs	Non-Timber Forest Products
ODA	Overseas Development Administration

OND	Ordinary National Diploma
OTV	Out-Turn Volume
PEP	Poverty Eradication Programme
PFRMP	Participatory Forest Reserve Management Programme
PRA	Participatory Rural Appraisal
RCU	Regional Co-ordinating Unit
RS	Remote Sensing
SAP	Structural Adjustment Programme
SCU	State Co-ordinating Unit
SFDs	State Forestry Departments
TFAP	Tropical Forests Action Programme
TOR	Terms of Reference
TTC	Teacher Training Certificate
TSS	Tropical Shelter wood System
UAES	Unified Agricultural Extension System
UNDP	United Nations Development Programme
WASC	West African School Certificate
WIA	Women In Agriculture
WRI	World Resource Institute

EXECUTIVE SUMMARY

Background

The overall objective of this study is to assess the National Forest Programmes in Nigeria with a view to properly positioning their formulation and implementation.

This report is a product of intensive survey of literature on Forest Resources and Forestry Development in Nigeria, complemented by a series of discussions with the key stakeholders and partners in the Forestry Sector.

Forestry Administration.

Forestry is administered in the country at the three tiers of government i.e. Federal, State and the Local Government Areas. The primary role of FDF is to formulate National Forest Policy.

It also plays an advisory role to the state Forestry Department; supports execution of Federally funded project and is responsible for relations with International Development Agencies. FDF is severely constrained by lack of funds to effectively perform its roles.

The SFDs manage the Forest resources at the state level. They also superintend over revenue generation from the Forestry Sector in the states. Like FDF, crippling financial resources have not allowed the SFDs to perform their functions. In addition, there is shortage of manpower, and most of the available personnel lack adequate training and exposure to modern Forestry techniques.

The roles of LGAs differ from North to South. In the south they have virtually no responsibility for managing the Forest resources, while the contrary is the case in the North. The LGAs are equally constrained by lack of funds and personnel to carry out their mandate.

Forest Resources

Nigeria currently has less than 10% of her total land area under constituted Forest Reserves. Recent studies using Remote Sensing and GIS show that undisturbed forest covers only 12114 km^2 representing about 1.3% of the Country's total land area.
The yield from the forest estates has been projected to be 8273m3 in year 2000 and this figure is expected to decline with time.

The Country has eight National Parks that are well endowed with diverse flora and fauna resources, some of which are endemic to Nigeria. The Parks and Cross River, Gashaka-Gumti, Kamuku and Kainji Lake National Parks. Others are Okomu, Old Oyo and Yankari National Parks.

The Forests of Nigeria contribute substantially to the National GDP and sustenance of the livelihood of the people. The Forest also provides critical environmental and ecological services.

Forest Management

Forest management started in Nigeria as early as 1889 with the opening of the " office of woods and forests " in the then colony and protectorate of Lagos.
At the formative stage, due regard was given to standard forest management practices, thus bestowing a high degree of sanctity on the forestry sector. Forest reservation was virtually completed in the high forest areas by 1940. Tropical Shelterwood System was introduced but later abandoned while attempt at artificial regeneration through Taungya system started in 1926. The recent times have however, witnessed an absolute disregard for forest management. Forest reserve is thus not maintained while management plans are either non-existent or abandoned.

Overview of NFP in Nigeria

The country has made several attempts at putting in place programmes that would ensure the efficient management of her Forest resources. These include the establishment of Industrial Plantations from 1978, Land Use and Vegetation survey between 1975 and 1978, Production of perspective plan for the period 1990 - 2005 and formulation of a Nigerian Forest Action Program in 1997. However, most of these initiatives have had limited impact in turning around the precarious state of the Forest estates.

The NFAP, which is one of the most recent, has evolved through articulated planning and involvement of all stakeholders in the Forestry Sector. Unfortunately, the NFAP has not proceeded to the implementation phase.

Outcome of NFP implementation

Policy and Institutional Reforms.

The forestry Sector did not have a separate policy before the commencement of the National Forestry Action Programme. What obtained was an encapsulation of the National Forest Policy within an overall "Agricultural Policy for Nigeria" which was published in 1988 under the aegis of the Federal Ministry of Agriculture.

The policy reform packaged in the NFAP has led to the setting up of two committees i.e. National Committee on Review of Forestry and /wildlife Legislation and the National Forest Policy Review Committee. The National Committee on Review of Forestry and Wildlife Legislation has finalised a bill to be forwarded for consideration by the National Assembly while the second committee has visited some Southern African countries and Malaysia to put in proper perspective their input to the new National Forestry Policy.

Perception of Forestry by Policy makers and planners.

The NFAP has succeeded in changing the perception of policy makers and planners that Forestry does not contribute much to the economy. This was possible by the awareness created through their membership of NFAP committees.

Capacity Development

The manpower disposition did not improve significantly during the NFAP process. Infact FDF recorded a shortage resulting from deaths, retirement and transfer to other departments.

The Forestry Sector lacks the capacity to carry out effectively its statutory responsibilities, a situation more prevalent with SFDs.

Economic viability of National Forest Programmes

The country records deficit in all areas of her wood needs. The demand for Industrial wood far outstrips production except in the case of pulp and paper probably because the mills are not working. The situation with the fuelwwod and NTFPs portends serious danger to the country.

The states Forestry Department are not properly funded. Most of their allocations are devoted to payment of salaries and wages. The situation is similar with FDF, which has not been able to properly fund the Field Offices to discharge their normal duties. The Forestry Sector has benefited substantially from International Funding Agencies, which have financed laudable programmes ranging from plantation establishment to Landuse and Vegetation Survey.

The revenue generated by SFDs is not substantial. Factors responsible for this low revenue generation include inappropriate pricing of Forest products, undervaluation of Forests and collusion of Forestry Staff with forest exploiters to defraud government. However, the sector enjoys some leverage from the Forestry Trust Fund and Ecological Fund.

Notable success on Account of NFP

The NFAP has succeeded in reviving the Forestry Sector and has provided individual and group training to both the formal and informal Forestry sector. Each state also has in place Forest Action Plan, which serves as guide for their Forestry development initiative.

Another important success recorded was the institutionalisation of dialogue between the stakeholders in the Forestry Sector as a prelude to programme design. To a large extent, current thinking in Forestry Circle has moved to Bottom-up approach in Programme design.

Factors responsible for the poor implementation of the NFP.

Full accomplishment of the NFAP objectives has been hampered by political instability in the country and ineffective political support.

The programme equally suffered an appreciable level of set back resulting from late replacement of requisite personnel and disbursement of fund. Other limiting factors include non-release of counterpart fund and inability to convene a Round Table conference of Partners. This conference is expected to provide an avenue for both the local and international collaborators to fashion out the appropriate funding and implementation mechanism for the NFAP.

INTRODUCTION.

Forests in Nigeria are recognized as a formidable base sustaining the economy of the Country and the livelihood of the rural populace. The forests provide the raw materials for both primary and secondary industries while generating employment for a sizeable number of the people.

Before independence, the available Forest Resources could adequately cater for the Country's requirements, both to meet the export market and local consumption. However, after independence, there was pressure on the forest resources to generate income to support the young economy and meet the needs of the ever-increasing population.

It therefore became glaring that the available resources could not be taken for granted without conscious programme interventions.
Several programmes had been put in place at both the local and National levels, but most of them were problem specific without taking a holistic look at the forestry sector.

The problems plaguing the sector invariably persist in spite of huge financial commitment to these forest development programmes. This study will therefore review the relevant programmes and make recommendations on strategies required for sustainable forestry development in the country.

Terms of Reference.

The overall objective of this study is to assess the National Forest Programmes in Nigeria in order to properly position their formulation and implementation. The specific tasks expected to address this overall objective were outlined in the Terms of Reference (TOR) (Appendix 2).

Method of Study.

This report made use of secondary and primary data. The former were in the form of official documentation at the state and federal government offices of forestry and some related sector, an intensive review of both published and unpublished documentation in the Federal Department of Forestry (FDF) and Forestry Management Evaluation and Co-ordinating Unit (FORMECU). This was supported by an intensive survey of literature on forest resources and forestry development in Nigeria, The primary data collection was largely qualitative, using In-Depth-Interviews (IDI) especially to gain insights into the perception of the interviewee's understanding of the interplay between development initiatives and National Forest Programmes. A basic objective achieved by the IDI was a more complete appreciation of how forestry is viewed by key stakeholders and partners in the sector. A list of the people contacted during the study is shown as Appendix 3.

Biophysical Overview.

Location and Size.

Nigeria has a total land area of 923,770Km^2 and is administratively structured into 36 states plus a Federal Capital Territory (Figure 1). Nigeria is bounded by Niger and Chad Republics in the North, Cameroon in the East and Republic of Benin in the West, with the shorelines of the Atlantic Ocean bordering the southern part. According to the 1990 census, the country had a population of 88.5 million with a growth rate of 2.5% per annum. At this growth rate, the population would have risen to 112.8 million by the year 2001. The population distribution, which has direct bearing on forest resources utilisation, is shown in Figure 2.

Climate

The climate of Nigeria is characterised by two distinct seasons i.e. wet and dry. The Climate is influenced by the Impact of two main wind systems, the moist cool monsoon wind which blows from the south-west across the Atlantic Ocean and the hot, dry dust laden harmattan wind which blows from the North-east across the Sahara Desert. Thus, the duration of the dry season increases from the wetter south to the drier north through a moderate middle belt. The dry season is short in the Niger Delta, about 1 to 2 months, that is December and January and long wet season of about 10 to 11 months. Conversely, long dry season and a short wet season lasting from 2 to 4 months characterise the north.

Similarly, the rainfall decreases in intensity, amount and duration from the south to the north with a high mean annul precipitation in the eastern part of the country of about 3,750mm and as low as 1,200mm and 1,700mm in Ibadan and Lagos respectively (Figure 3). The annual variability in rainfall has increased over the years and is greater in the North that is + or – 50% in Kano and + or – 2-% at Lagos on the coast.

Consequently, the relative humidity is consistently high in the South, with mean annual relative humidity above 80% and less than 30% in the extreme North. Likewise, the temperature increases from the Coast towards the interior due to the moderating influence of the sea, and generally the temperature ranges between 25^0 C and 35^0 C. The monthly mean maximum temperature is about 35^0 C in the North and 31^0 C in the South. While the monthly mean minimum temperatures are 28^0 C and 22^0 C respectively. Invariably, lower temperatures are often observed in the North during the dry season when the dust-laden harmattan from the desert engulfs the sun.

Relief.

The country is fragmented into three parts in line with the Y-shape formed by the Rivers Niger and Benue, and these are South West, South East and the North. The South is overlain by coastal, marine and deltaic deposits and in the far North by desert-derived deposits which dates from the Cretaceous, Tertiary and Quaternary Geological ages.

The relief can be sub-divided into seven regions namely the Creeks and Lagoons, the Niger Delta, the Coastal Plains, and Lowlands. Others are the River Basins Troughs, the Inselberg landscapes of western and northern Nigeria, the Chad Basin and the Eastern Highlands comprising a chain of hills ranging from 600m to over 2000m above sea level. Other notable features and areas in the country are the plateaux of northern and western Nigeria and the mountains bordering Cameroon Republic.

Soils.

There are four major soil groups in Nigeria, which are determined by the geology and climate of the country. These are the Hydromorphic and Organic Soil, Ferralite, Ferruginous tropical soil and Regosols, which are the arid and semi-arid soils. However, most of these soils generally compose of ancient undifferentiated metamorphic rocks, dating back to the Pre-Cambrian age. These tend to occur in zonal patterns, thus supporting the production of a variety of tree and food crops grown in the country. The detailed soil types are shown in Figure 4.

Vegetation.

The duration and severity of the dry season coupled with soil differences resulting mostly from the parent material determine the distribution of vegetation in Nigeria. The effect of rainfall is such that vegetation tends to thin out as one moves from the rainforest of the south to the Sahel savanna of the extreme North which has been seriously modified by human interference over the years. The vegetation types found in Nigeria can be broadly classified into nine zones (Figure 5). These are Sahel, Sudan, Guinea and Derived Savannas. Others are Lowland rainforest, Freshwater Swamp, Mangrove Forest, Jos Plateau and Montane Forests.

Drainage System.

The drainage system is made up of three distinct hydrographic networks. These are the inland drainage system of the Chad Basin, consisting of the Yobe River and its tributaries, which are supplied with water from the Jos Plateau. Others are the Niger-Benue system, which constitutes about 65% of the drainage network and also the coastal rivers, and their tributaries, which flow into the Atlantic Ocean. Some of these Coastal rivers include Rivers Ogun, Imo, Forcados, Benin, Orashi, Cross and Taylor.

Forestry Administration.

Forestry is administered in Nigeria at the three tiers of Government i.e. Federal, State and Local Government.

(i) Federal level

The Federal Ministry of Environment (FME) has the responsibility to administer forestry at the National level, through the Federal Department of Forestry (FDF). FDF was transferred from the Federal Ministry of Agriculture and Natural Resources (FMANR) to FME, which was created in 1999. The Department has the mandate to formulate National Forest Policy and support execution of federally funded projects. It also plays an advisory role to the State Forestry Departments (SFDs) and is responsible for relations with international development agencies. It is important to note that the Federal Government has no forest reserve of her own. Generally, the Department has been constrained by lack of funds to perform its functions over the years.

(ii) State level.

Forestry administration at the state level is the responsibility of the SFDs. Most SFDs are still placed under the state Ministry of Agriculture and Natural Resources (MANR) as some states are yet to establish their Ministries of Environment, which the Federal Government had advised them to do. Apart from the main technical functions of managing timber and wildlife resources, SFDs equally superintend over revenue generation from the forestry sector in their states. SFDs are also faced with crippling financial resources to perform their functions. This is compounded by shortage of manpower, most of who lack adequate training and exposure to modern forestry techniques. The overall staff disposition and structure of a state forestry department depends on the requirements of that state and the ecological peculiarities. In the south where most forests exist, the emphasis is on log harvesting while the North reflects the importance of tree establishment for fuelwood, environmental protection and livestock production.

(iii) Local Government Level.

The roles the Local Government Areas (LGAs) play in forestry administration vary from the North to the South. LGAs in the South have virtually no responsibility for managing the forest resources, either inside or outside forest reserves, but they could receive part of the revenue generated from forest produce by the SFDs. On the other hand, the function of LGAs in the north could include forest reserves or confined only to free areas. The roles stipulated for LGAs in the current National Forest Policy include the following:

- Establishment of woodlots to protect watersheds and river courses;
- Protection of forests and farm trees in arable land against fire and illegal felling of trees; and
- Protection of wildlife against poaching.

The LGAs, however, lack the necessary funds and personnel to carry out their roles.

Forest Resources

Table 1.1 shows results from the study conducted by Geomatics International for FORMECU using Remote Sensing and Geo-Information System (GIS). (FORMECU 1996). The Table depicts the major vegetation types from where the forest resources are derived as at 1995. It is interesting to note that Undisturbed Forest covers only 12114 Km^2 representing about 1.3% of the country's total land area.

This is not surprising given the prevailing deforestation rate put at 3.5% by FAO (1991) implying that there is annual cut of an area the size of all plantations ever established in the country. The web of factors leading to deforestation in the country include Agriculture, Fuelwood extraction, Logging, Mineral exploration and Urbanisation. There are other more serious underlying causes coming from rapid population growth, land tenure and poor landuse planning.

With less than 10% of her total land area under constituted forest reserves (Figure 6). Nigeria still turtles far below the FAO recommendation of 25%.

TABLE 1.1: LAND USE AND VEGETATION TYPES IN NIGERIA AS AT 1995.

Land Use Category	**Area (KM^2)**	**% of Country**
Intensive (crop) Agriculture	365,491	40.2
Extensive (grazing) Agriculture	187,236	20.6
Sudan Savanna	81,694	9.0
Guinea savanna	81,386	9.0
Floodplain Agriculture	20,918	2.3
Disturbed Forest	18,990	2.1
Gully Erosion	18,517	2.0
Shrub Swamp	9,248	1.0
Freshwater Swamp	16,499	1.8
Undisturbed Forest	12,114	1.3
Sahel Savanna	11,983	1.3
Discontinuous Grassland	11,248	1.2
Mangrove Forest	9,977	1.1
Agriculture / Denuded	9,206	1.0
Continuous Grassland	7,989	0.9
Natural Water	7,851	0.9
Montane Forest	6,759	0.7
Urban (major + minor)	5,444	0.6

Riparian Forest	5,254	0.6
Sand Dunes	4,829	0.5
Montane Grassland	3,112	0.3
Reservoir	2,888	0.3
Rock Outcrop	2,632	0.3
Tree Crop Plantation	1,641	0.2
Forest Plantation	1,573	0.2
Teak Plantation	1,156	0.1
Irrigation Project	988	0.1
Grass Marsh	871	0.1
Salt Marsh / Tidal flat	545	0.1
Agricultural Project	485	0.1
Alluvial	269	0.0
Livestock Project	139	0.0
Mining	62	0.0
Canal	29	0.0

Source: FORMECU (1996)

The Forest plantations in Nigeria consist mainly of *Gmelina arborea* planted under the World Bank Forestry Projects to feed the Pulp and Paper Mills in the country. Other species include *Tectona grandis, Pinus caribea* and *Terminalia ivorensis* Private plantations, though limited came to limelight only in the late 60s.

FORMECU (1994) projects the yield from the Forest estates between 2000 and 2010, putting it at a total of 8273m3 for 2000 and 7316m3 for 2010, implying that less wood would be available from the forests in the future if the current deforestation rate is sustained.

Nigeria has eight National Parks viz.: Cross River, Gashaka-Gumti, Kamuku and Kainji Lake National Parks. Others are Okomu, Old Oyo and Yankari National Parks. (Figure 6). The first National Park to be constituted in the country was Old Oyo National Park established in 1979 while the latest (Kamuku and Okomu) were gazzetted in 1999.

The National Parks, which all together cover a total land area of about 24,442Km^2, are widely endowed with diverse flora and fauna resources, some of which are endemic to the country.

The importance of Forest resources to the economy of Nigeria is aptly captured in the 1988 Forestry Policy Guidelines (FMANR, 1988). Forest was reflected as an important source of re-investible capital and a source of income. It serves as a foundation for industrialisation and enhances the stability of the rural population.

A report prepared by the Central Bank of Nigeria (1995) shows that Forestry contribution to Nigeria's Gross Domestic Product (GDP) are 1.82% in 1981, 2.04% in 1987, 1.29% in 1992 and 1993 and 1.31% in 1994.

Nonetheless, these can not be largest Forests' contributions to the economy, as several other products and services not accounted for in GDP are of huge significance in the daily lives of the majority of Nigerians. One of the most crucial of these is fuelwood, on which a greater percentage of the households rely for cooking. The NTFP, which include building materials, medicine, tools etc. also, sustain the livelihood of the people. Nigerian forests also provide critical environmental services, ranging from water protection to climate moderation.

Forest Management.

The trend of forest management in Nigeria is well documented in literature (Lowe, 1990; Umeh, 1992; Kio et al, 1992; and Lowe, 1994). Constituted intervention in forestry development started in 1887 when the office of woods and forests was created in the Colony and Protectorate of Lagos. In the same year, Mamu Forest Reserve was created to form a buffer between Ibadan and Ijebu territories.

In 1901, the first forest ordinance came into effect to regulate the sale of timber concessions, to impose forestry fees and minimum exploitation girths (usually up to 120cm dbh for mahoganies) and to mandate concessionaires to plant 20 tree seedlings at each stump site. This practice was, however, found ineffective and later abandoned. Revenue was also generated from taxes accruing from exported logs. H.N. Thompson was appointed the First Chief Executive of the Forestry Service in 1903 based on his past experience in Burma. This experience impacted largely on subsequent forest management practices adopted in Nigeria. It is on record that the Forestry Ordinance of 1916 was fashioned out of that of Burma. At the formative stage, the Forestry Department was assigned two main tasks i.e. regulating forest exploitation and establishing forest reserves. The Department determined the size of concessions, minimum exploitable girths and charge appropriate fees and royalties. The rule then was to remove only mature trees of 100cm girth and above.

Forest reservation was usually done in consonance with the local communities, who were authorised to continue their former uses of the forests, so far as such practices did not contravene the management of the forest for timber production. The rights and limitations of the people, including a description of the boundaries of the reserve were normally published as a part of the official gazette notice constituting the reserve. Forest reservation was almost completed in the high forest areas by 1940 except for Rivers State, where additional areas were constituted between 1960 and 1980. Majority of the forest reserves in the Northern Savanna zone was constituted between 1950 and 1970.

J. D. Kennedy and W. D. Macgregor were appointed in 1926 to begin research on the silviculture of indigenous species. One of the most important systems investigated was the Tropical Shelterwood System (TSS). TSS involved the demarcation of coupes, climber cutting and extensive poisoning with Sodium Arsenate of all non-commercial shade casting trees within the lower and middle layers. The system was later abandoned due to persistent political pressure to divert forest reserves to other uses and the inherent disadvantages in the TSS. The abandonment of the system led the Forestry Department to invest on artificial regeneration, especially, Taungya, which was introduced in 1926. Before then small-scale plantations of Teak and other tree species were established at Olokemeji and other places in Nigeria.

Gmelina arborea, which has now become the most popular plantation species in the country was introduced from Sri Lanka in 1932. After independence in 1960, emphasis was shifted to forest exploitation for industrial development and increased foreign exchange earnings. This requirement accentuated the unregulated exploitation of the forest resources.

In 1954 the country was divided into three administrative regions, each with its own forestry service. Each region enjoyed territorial power over its forest resources and was equally responsible for monitoring and supervising the activities of the native authority. The Federal Government, however, retained the aspects of forestry research and education. As more

states were created, the authority over the forest resources was transferred to the state governments.

In recent times, most forest reserves have been abandoned without annual maintenance and are being threatened by encroachment. The sustained yield principle was neglected while forest reserves were consistently mined. This situation prompted the Federal Government of Nigeria (FGN) to approach the African development Bank (ADB) for assistance to undertake a forest resources study for the country. This project which lasted between 1995 and 1998 succeeded in producing management plans for the different forest formations in the country (FORMECU, 1999).

Overview of National Forest Programmes (NFP) in Nigeria.

In the context of National Forest Programmes being the full range of policies, institutions, plans and programmes to manage, utilize, protect and enhance forest resources within a given country (Inter-Governmental Panel on Forests), various attempts have been made by successive administrations in Nigeria to ensure the efficient management of her forest resources. These include the setting up of the forest service as earlier explained, the creation of a Federal Department of Forestry in 1970 and the enactment/promulgation of various laws, edicts and decrees by various governments. Furthermore, some programmes and action plans have been developed to achieve sustainable forest development in the country. Prominent amongst these are Reservation Policy, Establishment of Industrial Plantations, Land Use and Vegetation Survey, Perspective Plan for Forestry Development and the Tropical Forests Action Programme (TFAP). Suffice it to mention that this study would concentrate on the TFAP because it is the only contemporary programme that is process oriented and has taken into consideration all parts of the country and key issues in its formulation.

The Reservation Policy.

This was pioneered by the colonial administration in the nineteenth century and a target of setting aside 25% of Nigeria's total land area as forest reserves was the thrust of this policy. This target has not been attained up till now.

Establishment of Industrial Plantations

Concerned with the huge amount expended on foreign exchange for the importation of timber for construction and paper/pulp industries and also to pursue self-reliance in wood production, the Federal Government of Nigeria embarked on the establishment of plantations. In 1978, the Industrial Pulpwood Programme was launched with the primary aim of producing raw materials to service Nigeria's existing pulp and paper mills and a new one that was to be established at Iwopin, in Ogun state. As a complement to this effort, the Federal Government secured a loan from the World Bank in 1979, under Forestry I Project to establish 25,000 ha of industrial plantation for the pulp and paper industry. Based on the success of Forestry I, the World Bank also advanced another loan of US$72million for a Forestry II Project, whose scope was expanded to include massive afforestation in the Northern parts of the country, community involvement in afforestation efforts and institutional strengthening and capacity building amongst others. The Forestry II Project recorded appreciable levels of successes. Although it must be pointed out that as at when the plantation species, mainly Gmelina and Eucalyptus were maturing, the Mills had broken down, while the new one was facing completion problems. The plantation species are now over-grown for pulping.

Land Use and Vegetation Survey.

The FAO assisted Nigeria technically and financially to produce a land use and vegetation map for the country in 1975, in a bid to provide the template for efficient forests and natural resources management. The result of this survey was further reviewed with another study in 1995.

Perspective Plan for Forestry Development in Nigeria, 1990 – 2005.

This plan was articulated under an overall perspective plan for agricultural development in Nigeria, in 1988. The plan highlighted the policies and programmes for forestry and wildlife development and captured the current situation of the sector as at then. Similarly, it identified key variables and factors in the development and conservation of Nigeria's forest and wildlife resources and described existing forestry and wildlife programmes (FMANR, 1988), and these are:

- Size of the resource base;
- Societal attitude;
- Finance;
- Resource structure and productivity;
- Manpower;
- Forest and wood based industries;
- Management and utilisation of forest and wildlife resources;
- Research, education and training;
- Institutions and legal framework; and
- Organisation and administration of the forest estate.

It further developed forestry programmes directed at meeting the total wood raw materials need of the country for the succeeding fifteen years (1990 – 2005). The identified programmes were:

(a) Fuelwood production;
(b) Transmission poles production;
(c) Fencing poles production;
(d) Sawlog production;
(e) Match splints production;
(f) Veneer and plywood production;
(g) Pulpwood production;
(h) Environmental forestry plantations;
(i) Other forest products i.e. Non Timber Forest products (NTFPs);
(j) Various bushment production e.g. Snail, Guinea Fowl; Crocodile; etc;
(k) Development of National parks and Game reserves; and
(l) Service programmes to serve as the pillars for the identified programmes. These are:
    - Forest management capability, remote sensing and national forest resources survey.
    - Forest fire programme;
    - Forestry extension programme; and
    - Research programme.

It equally recommended administrative changes, especially at the state level, where a Forestry development board (commission) should be created to administer forestry matters.Table1.1 shows the projected total plantation establishment target for forest products.

Table 1.2: Projected Total Plantation Establishment Target for Forest Products ('000ha)

YEARS	FUEL WOOD	TRANS-MISSION POLES	FENCING	SAWN WOOD	MATCH SPLINT	VENEER/ PLYWOOD	PINE	GMELINA	ENVTAL FORESTRY
1989	208.796	1.001	4.041	1.4320	.0050	10.211	.435	1.431	1.0625
1990	304.926	1.051	6.145	2.1420	.0081	10.548	.471	1.510	2.1750
1991	411.599	1.091	8.290	2.6210	.0110	10.901	.490	1.562	2.1750
1992	521.000	1.131	10.502	3.3400	.0139	11.441	.511	1.640	2.1750
1993	633.199	1.171	12.471	4.0630	.0169	11.965	.541	1.721	2.1750
1994	747.999	1.210	15.042	4.7500	.0199	12.511	.561	1.799	2.1750
1995	866.001	1.270	17.450	5.4710	.0229	13.041	.591	1.880	2.1750
1996	966.599	1.300	19.831	6.1900	.0271	13.522	.610	1.971	2.1750
1997	1110.500	1.348	22.293	6.1900	.0299	14.110	.641	2.115	2.1750
1998	1237.300	1.401	24.828	7.6000	.0329	14.650	.661	2.131	2.1750
1999	1367.400	1.451	27.460	8.330	.0341	15.182	.692	2.210	2.1750
2000	1500.800	1.493	30.131	9.2800	.0400	15.891	.721	2.321	2.1750
2001	1637.300	1.540	32.881	10.0020	.0429	16.431	.751	2.399	2.1750
2002	1777.300	1.582	35.669	10.9500	.0478	17.140	.780	2.499	2.1750
2003	1920.800	1.643	38.538	11.6590	.0511	17.678	.858	2.580	2.1750
2004	2068.000	1.701	41.499	12.6100	.0549	18.390	.841	2.690	1.0625
TOTAL	17279.500	21.384	347.071	107.380	.4585	223.642	10.155	32.559	32.575.

Source: FMANR, (1988.)

The fact that the present area of plantations in the country is far less than 300,000 hectares attests to the level of success achieved so far against the targets set in the perspective plan.

Rural Forestry Development in Nigeria..

Formulated in 1981, this programme sought to address the rural communities' dependence on forests for their fuelwood, vegetables, fruits and raw materials for building houses, boats and other infrastructure. It was designed to boost wood production through the involvement and encouragement of rural communities, co-operatives, institutions, individuals, entrepreneurs and the general public in the establishment of village woodlots, fuel-wood plantation, farm trees, hedges and shade trees on areas outside forest reserves.

Other ancillary objectives included:

- promotion of rural employment and development;
- encouraging and promoting amenity plantings in residential quarters and public places;
- reclaiming and enriching barren and marginal lands through afforestation; and
- the introduction of Taungya systems (Agroforestry) to local farmers.

Unfortunately, this programme was not able to realise its set objectives. It however, provided the basis for future community participation in forestry development initiatives.

Forest Resources Study of Nigeria(1995 – 1998)

The Forest Resources Study (FRS) was a follow-on to the Indicative High Forest Inventory conducted between 1973 and 1977 by the Federal Department of Forestry. Financed by the African Development Bank (ADB), the study was conducted by Geomatics International under the supervision of FDF/FORMECU and it succeeded in conducting an inventory of Natural forests and plantations in 28 states of the country.

Forest Management Plans were produced for each state involved and a Forest Information System (FIS) was developed to assist in sustainable forest management.

Based on the results of the Forest Inventory and the various sub-studies, The study recommended the following projects for execution.

1. Integrated Forest Resources Management
2. Afforestation Plantation Development Projects: Industrial and Protective Plantations.
3. Efficient Utilisation of Forest Wood Products.
4. Institutional and Manpower capacity building at the Federal, State and Local Government Area levels.
5. National Forest Resources and Support Centre.
6. Institutional and Manpower Capacity Building through the upgrading of three Forestry Vocational Training Institute located at Benin, Kano and Oluwa.

Funds are yet to be sourced for the commencement of these projects.

Tropical Forests Action Programme (TFAP).

The TFAP could be said to be the programme in the forestry sector that sought to address existing inadequacies in the approaches for solving forestry development inconsistencies. In 1989, the FGN approached the Food and Agriculture Organisation (FAO) of the United nations to assist in identifying partners for the implementation of TFAP which would involve enunciating a National Forestry Action Plan (NFAP) for the country. FORMECU of FDF was subsequently given the mandate to co-ordinate the TFAP. In 1990, FORMECU was invited to participate in the independent review of the TFAP – jointly organised by the World Bank, United Nations Development Programme (UNDP), World Resources Institute (WRI) and the FAO. This was followed by an international workshop held at Ibadan in May 1990 to review the programme. This workshop provided the Nigerian scientists the opportunity to express their position on contemporary forestry issues and the TFAP.

It is important to mention that at inception, the TFAP was designed to be a process-oriented and not a project-oriented action plan (FORMECU, 1996). The stages of the TFAP were expected to lead logically from problems and opportunity identification to formulation of policies, strategies, plans and programmes, which would produce a NFAP. Furthermore, the TFAP concept was revamped in 1992 to be country-led and to encompass peoples' participation and so became known as the National Forestry Action Programme. Thus, the terms TFAP and NFAP are used interchangeably in this report.

The activities undertaken during the TFAP process can better be recapitulated under four major phases as highlighted below:

Phase I: Identification of partners.

In June 1990, a substantive National TFAP Coordinator was appointed and he was given a full complement of staff to form the TFAP National Coordinating Unit (NCU). The first main assignment of the NCU was to identify the major stakeholders and partners. Eight experienced foresters were appointed in 1991 as zonal consulting advisers to assist the work of the unit.

Each state of the federation and the Federal capital Territory also constituted their States Coordinating Units (SCUs) which were supervised by Regional Coordinating Units (RCUs) set up under FORMECU. In all, there were four RCUs representing the various geo-political regions of the country.

Phase II: Preliminary Assessment.

In 1992, the Federal Government secured a grant of US$695,500 from the UNDP to finance the planning phase of the Nigerian TFAP. FMANR was designated as the National Lead Institution, while the FDF, through FORMECU, was made the government-implementing agency under the supervision of the World Bank, as the Executing Agency. Prior to this, the World Bank financed a forestry sector analysis, which provided a diagnostic survey of forest resources situation in Nigeria. The Forestry Issues Paper was subjected to critical review through workshops and seminars. As part of the consultation process, regional workshops on TFAP were held in all the four regions into which the country was zoned. Participants were drawn from FDF, Federal Department of Agriculture (FDA), Federal Livestock Department (FLD), SDFs, Agricultural based institutions, parastatals, universities, private foresters, community leaders, consultants, agroforesters and retired Directors of forestry. Discussions at the workshops dealt with the review of the forestry sector, goals and objectives of the TFAP, structural, inter-sectoral and institutional support to achieve the goals.

To ensure the greatest commitment at the highest and all levels of government, the TFAP Advisory Committee and the TFAP National Technical Committee were inaugurated in February, 1994 by the Honourable Minister of Agriculture, who also served as the Chairman of the Council. The Director, Federal Department of Forestry was made the Chairman of the National Technical Committee. State Governors subsequently inaugurated states TFAP Advisory Councils and Technical Committees. The National Technical Committee operated through working groups along delineated gaps as a vehicle for addressing pressing forestry issues. The nine working groups had members drawn from related sectors while specialists in the main theme of the working group were contracted as resource persons. The NCU worked in conjunction with the SCUs, to collect and collate relevant data on the forestry sector. These data served as the basis for the formulation of the NFAP for the country.

Phase III: In-Depth Sector Analysis.

A large number of local and international consultants were engaged to carry out studies on forestry and related sectors in the country. The National Technical Committee equally produced reports that served as invaluable tool in structuring the NFAP. At this stage, the World Bank appointed an international consultant as Chief Technical Advisor (CTA) to ensure that the TFAP was going in the right direction.

Phase IV: Formulation of the NFAP.

The CTA working with NCU ensured that sufficient data were collected for the formulation of NFAP. Furthermore, intensive training, workshops and seminars were organised to place the staff of the co-ordinating units in a position to produce acceptable action plans. This resulted in the production of states and regional action plans. In 1995, two Nigerian consultants were appointed by the World Bank to harmonise all existing action plans and produce a draft main NFAP Report for Nigeria. This report was widely circulated to the relevant stakeholders and partners for deliberation at a national workshop held in November 1995. After the workshop, views were harmonised and a final report was produced in February 1996. This report was adopted by the National Forestry Development Committee (NFDC) in 1997.

1.7.7.1 Operational Principles of TFAP in Nigeria.

The relatively low impact of national forestry development programmes in arresting the deplorable state of the forests has been linked to several factors (FAO, 1994). These factors were broadly classified into two:

a. constraints that relate to policy reform and inter-sectoral co-ordination. Most countries have been very slow in undertaking the necessary policy reforms and when done are not intrinsically linked with the other sectors that impact on forestry.

b. Weakness in planning and implementation strategies adopted in forest management. More often than not, the technocrats without enlisting the interest of the key stakeholders do planning.

The main principles adopted during the TFAP process in Nigeria were geared towards addressing these factors which have direct bearing on the forestry sector in the country. The salient features of these principles are highlighted below:

(a) Participatory Approach:

At the onset of TFAP in Nigeria, a National Workshop was held in Kaduna to bring together all the stakeholders in the sector. For the first time in the annals of forestry in the country, people outside the profession were invited to contribute to the debate on how to better manage the forests. Participants were drawn from the academia, the agricultural sector, Non-Governmental Organisations (NGOs), industrialists, amongst others. In the same vein, the forest dwellers and local people were intimately involved during the data gathering exercise and project formulation. The huge acceptance accorded the programme can be associated with the openness with which it was undertaken in the country. In all its ramifications, the planning phase was carried out through the grassroots (bottom) and ending up at roundtables (top) for final formulation.

(b) Intersectoral Linkage.

Most of the problems of forestry in Nigeria emanate from outside the sector. The earlier part of this report has noted the effects of high petroleum product prices on deforestation. The agricultural programmes of the various governments also have far reaching consequences on the forest resources. The composition of the TFAP National Technical Committee therefore reflected the interests of other sectors and land-users that could impact directly or indirectly on forestry development. These sectors were given ample opportunities to contribute to the entire process through workshops and seminars. The Technical Committee, in particular, served as a vehicle by which inter-sectoral and structural issues were amended. This could be seen from the composition of this committee at the National level (Appendix 4), which was replicated at state levels.

(c) Country-Driven:

The decision for adopting the TFAP approach in a country is made by its Government, which will also decide what course of action to take to implement the TFAP in the national context (FAO, 1989). This operational principle ensures that the TFAP process is essentially a national undertaking, with requests for international assistance, if required. The TFAP in Nigeria was largely country-driven and this ensures that the development of priorities, based on identified issues in the forestry sector, is informed by considerable attention to the local socio-economic and cultural milieu of the people of the country.

Involvement of National and International Organisations.

As noted earlier, all the SFDs had in place their SCUs, which ensured the smooth operation of TFAP at the state level. The State Governments embraced the programme with the desired enthusiasm as it was seen as a means of securing laudable projects for their states. Through government support, many SCUs had the necessary funds and equipment to undertake the programme. Some states even went as far as putting TFAP on their annual budget.

The Forestry Research Institute of Nigeria (FRIN), universities and other training institutions equally participated actively in the programme. Most of their contributions were towards workshops, seminars, training and consultancies. The prominent NGOs in the country contributed immensely to most phases of the programme. The NGOs were called upon to make input when their areas of focus were in consideration and they were also members of the technical committees. For instance, the Nigeria Conservation Foundation (NCF) was a member of Working Group 2, while the Nigerian Environmental Action/Study Team (NEST) was a member of Working Group 6.

The TFAP process enjoyed the full support of International organisations right from its inception. In order to have a thorough understanding of the TFAP; the FAO financed the participation of some senior NCU and RCU staff at a training workshop in Arusha, Tanzania, in 1994. FAO equally provided useful guide in terms of information dissemination and progress monitoring. The financial support from UNDP was noted in the previous section. This financial assistance saw the programme through the planning phases to the formulation of NFAP. It was equally noted in this section that the World Bank supervised the funds and provided technical guidance.

OUT COME OF NFP IMPLEMENTATION.

Changes in the condition of forest resources.

It is important to state that TFAP in Nigeria did not proceed beyond the planning phase, which culminated in the production of the Nigerian Forestry Action Programme waiting for implementation. Consequently, the impacts are more glaring in the creation of conducive environment for the actualisation of reforms suggested in the NFAP.

In other words, changes in the condition of Forest Resources are not as clear as in the areas of policy, legislation and enlightenment.

Similarly, the impacts on supply of goods and services would better be appreciated when the implementation of NFAP is on course.

Policy and Institutional Reforms.

Policy.

Prior to the commencement of the National Forestry Action Programme (NFAP), the Forestry sector did not have a separate policy. What obtained was an encapsulation of the National Forest Policy within an overall "Agricultural Policy for Nigeria", which was published in 1988 under the aegis of the Federal Ministry of Agriculture.

The major objective of this policy was to achieve national self-sufficiency in wood products through the use of sound management techniques. Summarily, this policy aimed at:

(a) Consolidation and expansion of the forest estate and its management for sustained yield;
(b) Forest Conservation and protection of the environment;
(c) Forest regeneration at a rate greater than exploitation;
(d) Reduction of waste in utilising both the forests and its products;
(e) Protection of the forest estates from fires, poachers, trespassers and unauthorised grazers;
(f) Encouraging private forestry;
(g) Creation of man-made forest for specific end-uses;
(h) Increasing employment opportunities;
(i) Development of National Parks and Game Reserves;
(j) Development of secondary forest products which are significant in the local economies, and encouragement of agro-forestry practices;
(k) Development of more efficient use of wood energy and encouragement of alternative sources to wood fuel; and
(l) Cooperation with the international community in forestry development.

With the advent of the Structural Adjustment Programme (SAP) in 1985 and other related government macro-economic policies, the implications for the redesigning of a holistic forest policy becomes evident. Of specific emphasis is the 1995 Federal Government Economic Policy Guidelines, which was aimed at promoting economic growth through a free market economy to encourage greater private sector participation and investment.

These broad economic policy reforms, during the NFAP formulation in Nigeria, provided a wider perspective for taking a critical look at the existing forest policy viz- a-viz emerging world trends in the management of forest resources.

In a review of forestry and related sector policies (Working Group 1) the NFAP identified the following problems associated with the existing policies and practice:

(a) widespread and increasing land and vegetation degradation;
(b) growing debilitating effect of land degradation on communities;
(c) escalating real supply/demand deficits for forest products;
(d) absence of credible databases;
(e) ineffective management of forest reserves;
(f) negligible private investment in forestry;
(g) neglect of biodiversity with a low level of protection of existing reserves;
(h) low capability of forestry staff(both at the Federal and State levels, especially at the latter); and
(i) dual control of forests and its resources in the northern part of Nigeria.

To address the identified gaps, the NFAP Report highlighted the need for a review of the existing forest policy in order to provide an enabling environment for sustainable forestry management and development in the country. To achieve this, it set out broad strategies for review to include:

(a) Establishment of a Land Use Planning Agency (LUPAG)
(b) Redefining forestry sector policy in line with the realities of modern forestry concepts;
(c) Liberalising land tenure systems and tree ownership to allow both male and female free access to land, which would enhance forestry development in the country;
(d) Taking into consideration new products and services, and
(e) Taking corporate protection and management measures to replace the SDFs and LGAs absolute control of forest resources.

The Report further stated that the new National Forest Policy must be complemented by state policies and should put in place appropriate mechanisms to arrest unrestrained resource flow as well as ensuring the means for implementing sustainable management. Particularly, the mandatory duties of the FDF, SFDs and LGAs would need to be delineated while the role of Non-Governmental Organisations (NGOs) and incentives to private forestry would be institutionalised.

Arising from this, the Federal Government set up two committees viz the National Committee on Review of Forestry and Wildlife Legislation; and the National Forest Policy Review Committee in 1998. These two Committees would be concluding their assignments before the end of the Year 2001.

The National Forest Policy Review Committee is being supported by the Ford Foundation and salient considerations being made for incorporation in the proposed National Forest Policy include the following:

(1) **Decentralisation:** the need for government to give up more power and authority to institutions below federal and state levels i.e. local governments and possibly ward levels. This presumes the inclusion of community institutions, where they exist e.g. Community Based Organisations (CBOs). This is informed by the realisation that state governments do not have

enough financial and human resources to effectively manage and control what happens at the lower levels. Aside from the international clamour for democratic reforms and decentralisation, another important consideration is that natural resources are best controlled and managed by the people using them and living closest to them.

(2) **Peoples' Participation:** increased participation of "producer communities" in natural resource management and more active articulation and representation of their interests, is deemed critical to the overall success of any policy reform process. This would result in increased responsibility for community mobilisation to ensure sustainable management of resources in the country. Participatory Rural Appraisal (PRA) should be mandatory for any development activity, as this would address the need for social research to determine some of the limitations to sustainable natural resources management.

(3) **Partnerships:** Government should promote the establishment of partnerships between implementing organisations, the private sector, NGOs, CBOs and International Aid Agencies. This would enable government to concentrate its resources on policy, legislation and natural resources management.

(4) **Financial and Economic Frameworks:** locally available financial incentives directly influence natural resources management strategies (Rihoy et al, 1999). The National and Local political and economic factors influencing such incentives need to be reviewed and revised to ensure that a significant share of benefits generated from natural resources based enterprises are returned directly to the "producer communities"

(5) **Institutional Reforms:** although there exists a need to decentralise and delegate management responsibility and control over natural resources, such transfer of authority needs to be accompanied by institutional reforms at all levels. Also required is institutional support at the local government and community levels, with capacity required in governance, natural resources management, marketing and administration. This will provide communities with the requisite technical skills for natural resources management.

(6) **Diversification Strategies:** the success of sustainable natural resource management depends largely on the ability of such strategies to financially out perform alternative land use strategies at a lower cost to the natural resource base (Scott, 1998). This also depends on optimising income from the consumptive and non-consumptive use of the full range of locally available natural resources, which will align them with household management strategies.

(7) **State of the Environment Reporting:** the framework of policy review process should be a State of the Environment Report, which should be done on a regular basis.

(8) **Land Reforms:** Land Use Classification should be undertaken to ensure optimal utilisation of land. This would aid the revision of the 1978 Land Use Decree to empower communities in playing more beneficial, active and traditional roles in natural resources management. The proposed reforms are

also to cover clearly defined usufructuary and tenurial right and conservation of fragile ecosystems, amongst others.

The committee has conducted study tours to Southern Africa and Malaysia, as a means of experience sharing and learning from other countries' policy formulation process. The last phase of the study tours is to visit Ghana, after which its report would be distributed to stakeholders for deliberation at a National Workshop. Thus the NFAP can be said to have successfully engineered the review of Nigerian Forest Policy

Institutional.

The NFAP clearly identified existing institutional weaknesses in the forestry sector, assessed prospects for enhancement and proffered suggestions. Institutional arrangement has been a major problem in addressing forestry and environmental issues in the country. Lack of personnel and/or placement of personnel with requisite skills, administrative misallocation, ineffective coordination and linkages between relevant agencies have always dogged this sector. For example, the nucleus of the defunct Federal Environmental Protection Agency (FEPA) moved round six ministries in twenty years before it was created as an agency and put under the Presidency in 1998.

Administration

Recognising the reason(s) for the ineffective and inefficient discharge of responsibilities on forestry and environmental issues, the NFAP called for the need to set up a National Council on Environment (NCE) which is to serve as the apex policy formulation organ for environmental issues in the country. In Nigeria, National Councils on various sectors are coordinated by the Federal Ministry with responsibility for that sector. These National Councils are made up of the state Ministries in charge of the specific sector, the Federal Ministry and related Federal establishment and the Federal Minister chairs it. Tacitly put, the call for the National Council for Environment provided the impetus for the call for the creation of a Federal Ministry of Environment. The eventual creation of the Federal Ministry of Environment was a realisation of one of the pivots of the NFAP's recommendation on institutional reforms.

The Ministry is the apex organ for coordinating environmental forestry development activities in the country and the Minister is the Chairman of the National Council on Environment. This Council is responsible for policy making, coordination and harmonisation of environmental management efforts across the nation. It is made up of all the technical departments and parastatals in the Federal Ministry of Environment, the Ecological fund and States Ministries of Environment. The NFDC still remains a subsidiary of this Council and retains its functions with the same membership, except for the inclusion of the Directors of the two newly created departments i.e. Environmental Conservation and Drought and Desertification Amelioration.

Research

There is no direct impact of the NFAP on Research. However, the indirect outcome of the NFAP process in Research could be gleaned from the changing perspective for the need to conduct Participatory Rural Appraisals (PRA) as a tool to ascertaining areas of research needs of the populace. It is worth mentioning that in appreciation of the importance of research in preservation and conservation of genetic resources, the NFAP report identified the need to set up a National Herbarium and rehabilitate existing ones. One of the notable herbaria in the

country, Forest Herbarium, Ibadan (FHI) at the Forestry Research Institute of Nigeria (FRIN) is being rehabilitated. Although this is as much an outcome of NFAP as it is in the day to day administration of the FHI.

Education

The NFAP under a Human Resources Development and Capacity Building project identified in its Institutional Strengthening programme emphasised the need for strengthening education and training in forestry and natural resources management. It also recommended the development of appropriate curriculum, in tune with modern trends in forestry development, to be introduced at the primary, secondary and tertiary levels of education. This would have been more obvious if implementation of the NFAP had commenced.

Extension.

Prior to the commencement of the NFAP, forestry extension was being delivered under the overall framework of the Unified Agricultural Extension System (UAES). The essence of the UAES was that an extension worker would be adequately equipped to handle the dissemination of information on all aspects of agricultural production. However, in practice, delivery of forestry extension was being pushed to the background. The NFAP was able to influence the placing of priority on agroforestry practices through its technical committees at the state level. Available empirical evidence suggests that a number of communities, especially in the North are now engaged in on-farm tree planting.

Legislative.

Forest legislation is an indispensable tool for the implementation of forest policies because it provides the structural framework within which National Forest Policies are set and in turn reflects their objectives and priorities (Adeyoju, 1994).

From pre-colonial times to the early sixties, Nigeria has not been short of legislation in the forestry sector. However, most of these legislation are obsolete and are not in conformity with present developmental trends. Equally, most of these laws were drafted under the regional government arrangements (Northern, Western and eastern Administrative Regions) which still subsist till today, except for some few states e.g. Kebbi and Cross River, that have enacted new legislation as state properties. A prominent feature of these legislation is that the states laws are largely modifications of the regional laws, which were in turn modifications of the 1938 Forestry Law (Bada, 1995), with the following common features:

(a) emphasis on timber harvesting and felling controls as the major issues requiring legislation;

(b) acknowledgement of the multiple roles and uses of forests;

(c) wildlife, national parks and nature protection are integral parts of the legislation, i.e. at the Federal Level. Such differentiation are not included in state laws;

(d) Aspects which refer to protected forests are concerned with the protection of certain species, and certain categories of forest produce;

(e) Acknowledges the interdependence between rural people and the forests. Customary usage rights ranging from collection of forest products, hunting,

Fishing, grazing, agriculture, squatter settlements and rights of way and water are recognised.

(f) Generally, emphasis was placed on the elaboration of appropriate set of regulations with regard to:

- The relation between the envisaged resource commitment in terms of contract duration and size of concession, and the proposed level of investment;
- The preparation and subsequent implementation of forest concession in accordance with forest management regulations;
- Encouragement of local timber processing or restrictions on log ex[ports;
- The establishment of a performance control system for concessionaires;
- The introduction of forest revenue and export tax assessment procedures that enable the State Governments to capture an increasing proportion of the resource rent from the committed harvestable timber stock;

After an assessment of the existing legislation, the NFAP identified the following problems that need to be addressed:

(a) absence of appropriate federal law relating to forestry;
(b) existing laws are obsolete;
(c) some of the laws do not contain penalties or sanctions for the contravention of its provisions;
(d) lack of specificity e.g. Decree No. 11 of 1985 – Endangered Species: Regulation of Import and Export of Specialised Plant Species Order 1991 – only listed endangered plants by family without specifying the particular plant species;
(e) overlapping roles and responsibilities;
(f) Poor law enforcement strategy;
(g) Inadequate or no provision for scientific management of forest resources;

The National Committee on the Review of Forestry and Wildlife Legislation produced a draft decree in 1999. With the support of the Nigerian Conservation Foundation (NCF), a two-day consultative workshop – involving the relevant stakeholders, was held in August of 1999. The key elements of the draft National Forestry Legislation are:

(a) Establishment and management of National forest estates;
(b) Guidelines for the management of forestry development programmes and projects including the determination of national allowable cut;
(c) National forestry accounting and planning;
(d) Forest resources exploitation and tariffs management;
(e) Export of wood and non-timber forest products;
(f) National forest protection schemes;
(g) Access to genetic materials in the nations forests and rights of indigenous communities and individuals to benefit-sharing from technological improvements derivable from traditional knowledge and indigenous genetic resources;
(h) Establishment and management of a national Forestry Inspectorate Unit;
(i) Prescription of uniform and accoutrements for forest staff;
(j) Establishment of criteria and indicators for sustainable forest management;
(k) Land tenure: the proposed law makes it difficult to de-reserve national forests;
(l) Rights: Ensures that existing rights are adequately recognised and compensated with clearly defined roles and responsibilities;
(m) Private Forestry: made adequate provisions to encourage private forestry and provide a legal framework to protect private forests;

(n) Market based Forest Revenue System: The draft law emphasises the need for the Commission to utilise the revenue it generates, encourage competition in allocating forest concessions, provide adequately for imposition of fees, levies, royalties and the principle of utilising market mechanisms and economic incentives;
(o) Sustainable Resources Management;
(p) Community Participation: Explicit rules and structure to ensure community participation in the management of forests and the sharing of benefits;
(q) Sanctions and penalties: The draft legislation adopted the principle of minimum punishment to afford adequate deterrent;
(r) Forest Agreement: Unambiguous content, acceptable variations, duration binding, form and content and grounds for termination of agreements are contained in the draft;
(s) Feasibility Study was set as a precondition for any forest development project;

The draft is to be prepared as a bill to be forwarded for consideration by the National Assembly. When this process is completed, the NFAP would have succeeded in providing the enabling legislation for sustainable management of Nigeria's forest resources.

Related Sector Policy and Institutional Responses:

Agriculture: The NFAP did not influence any policy change in the agricultural sector, since the 1988 Agricultural policy has not been reviewed based on any recommendation in the NFAP. Suffice it to mention that the NFAP did not mention the need for any policy review in this sector. It however, called for a re-orientation in agricultural programmes, incentives and practices that contribute to deforestation, and to remove institutional overlaps in the management of natural resources. It is in this light that it might be stated that the agricultural sector responded to the NFAP through institutional change as regards the scrapping of the Nigerian Agricultural Land Development Authority (NALDA) in 1998.

NALDA was created by Decree 92 of 1992 with the mandate for land development; agricultural production, environmental protection, land use planning and management; extension and Agro-services. In the implementation of this mandate, one of the major activities carried by the Agency was bush clearing of large tracts of contiguous land, each with a minimum size of 1000 hectares. Of course, these large tracts are obviously forest areas and the continual existence of such a body negates whatever attempts are made in the forestry sector to increase the country's forest cover.

It was the need to address these issues, amongst others, that informed the setting up of a Presidential Committee in 1996 to look into the activities of NALDA. The Committee reported that NALDA lacked the capacity in terms of physical infrastructure and personnel to perform its functions (FMANR, 1996). Besides, its creation had resulted into making some departments dormant in the then Federal Ministry of Agriculture. It was thus scrapped and absorbed into the Department of Rural Development of the Ministry. The scrapping of the Agency with a blanket mandate to clearly deforest the scanty forest estate of the country definitely reduced government endorsed sources of deforestation.

Energy:

Surprisingly, Nigeria does not have an approved Omnibus Energy Policy. What obtain are components of the policy intent as captured by related sectors **e.g.** Petroleum, Power and Steel etc. However, a draft Energy policy was enunciated in 1988 and in 2001, an Inter-Ministerial Committee was set up to review the draft and produce an Energy Policy for the Country. The

Committee concluded its assignment in April 2001 and the policy is awaiting the approval of the Federal Executive Council (FEC).

The NFAP Working Group 7 report, (Fuelwood) averred that energy policy issues in relation to fuelwood should ensure that the energy needs for sustainable development paths are met in the most cost-effective and Environmentally friendly manner (Amaza, 1995). The major recommendation of this report was the reduction in demand for fuelwood through effective demand management strategies such as substitution with alternative fuels especially renewable.

Salient strategies in the Draft Energy Policy resulting from the NFAP exercise include massive afforestation schemes for development of community woodlots, diversification of energy mix, promotion of the use of renewable energy sources, and research into existing methods of energy generation to reduce the demand on fuelwood. Most importantly, the key elements in the draft National Energy Policy, that could be indirectly, if not directly linked to the NFAP, on the development and application of renewable energy and its technologies are:

(a) to de-emphasise and discourage the use of wood as fuel;
(b) to promote efficient methods in the use of biomass energy resources;
(c) to develop, promote and harness the Renewable Energy (RE) resources of the country and incorporate all viable ones into the national energy mix;
(d) to promote decentralised energy supply, especially in rural areas, based on RE resources and;
(e) to keep abreast of international developments in RE technologies and applications (Iloeje, 2001).

Telecommunications:

An appreciable proportion of the demand for poles in Nigeria's forest resources is made by the telecommunications and energy sectors for the provision of transmission poles for erecting telephone lines and distribution of electricity. The National telecommunications Policy, 2000, is anchored on the shift from analogue to digital and modern telecommunication facilities. In the policy, the transmission network consists of terrestrial microwave, optical fibre, cable and satellite. The implication of this on Nigeria's forest resources is that the local demand for poles would considerably reduce, thereby allowing for a more vibrant export potential for the poles. It is worth mentioning that in as much as this is not a direct outcome of the NFAP, it would contribute to reducing the pressure on the country's forest resources.

Industry:

The only industry that the NFAP influenced is the wood-based industry, probably because it is closely related to the forestry sector. Although available information to substantiate this influence are only qualitative because of the dearth of quantitative data.

Social and Economic Policy.

The NFAP did not specifically address major issues in the social and economic policy aspects of the Nigerian polity directly. However, there are certain programmes being pursued that could be seen to contribute to reducing the pressures on existing forest resources. Examples of these include the Family Economic Advancement Programme (FEAP) and the Poverty Eradication Programme (PEP). The focus of these programmes are to empower the rural communities in engaging in small and medium scale business enterprises that would divert their attention from the inordinate exploitation of forest resources as a means of livelihood.

The Obasanjo's Economic Direction 1999 – 2003, report averred that there is a need for policy reversal to reduce the number of Nigerians in the poverty range from 67.1 million in 1999 to internationally acceptable levels. In this wise, measures planned to address the twin problems of low economic growth and high poverty incidence by the current administration include the provision of 5 million jobs which also involves the training and settlement of at least 50% of tertiary institutions graduates. A return to agricultural based programme and its modernisation with adequate consideration for the environment.

Overall Impact of Policy and Institutional Changes:

It is obvious, from the fore-going, that the NFAP has facilitated some changes in policy, legislation and institutions and this is being internalised with the continual interaction of policy makers that appreciate the importance of the NFAP approach. It is worth mentioning, that it would take a much longer time to actually ascertain the level to which these changes have been imbibed because the NFAP did not proceed further than the planning phase.

New Policy Tool:

The most important policy tool created as a result of the NFAP process is the use of bottom-up approach and dialoguing amongst the relevant stakeholders in enunciating policies. This tool ensures the incorporation of the various interests of the relevant stakeholders in the forestry sector. It is in this wise that the present policy being formulated by the National Forest Policy Review Committee; with members drawn from the NGO community, Private sector and Public sector; would be subjected to a stakeholders review workshop before finalising.

Another tool worth mentioning is the state of the environment report as the basis for periodic reviews of the forest policy. The NFAP anchored its recommendations on the review of the forest policy on periodic assessment of the conditions of the forests to provide a clear understanding of the response of the sector to whatever policy that is prevailing. This would then dictate the direction of any proposed review.

Consideration of Forestry in the Economy:

Prior to the commencement of the NFAP exercise in Nigeria, forestry was not considered, in its entirety, as having much impact on the economy. For example, forestry was said to have contributed about 2% to the GDP and this estimate is based purely on timber exploitation. It is thus obvious that the aesthetic, health and recreational values of forestry are not taken into consideration in the computation of national accounting. In order to address this, the NFAP set up a working group on "Development of a range of economic/financial indicators which will allow for a more accurate measurement of the impact of economic policies on the environment". The report contained recommendations for the implementation phase of the NFAP, which if followed would really capture the major part of forestry's contribution to the economy.

Perception of Forestry by Policy makers and Planners:

With the background presented in 2.3, it is obvious that policy makers and planners perceived forestry as not contributing much to the economy, perhaps this could partly explain the low priority accorded the sector. However, with the NFAP, some of these perceptions changed because of the awareness creation targeted at the policy makers, at least in the related sector, through their membership of various NFAP committees.

Table 2.1 Consideration of the implications of related sectors policies/ on forestry.

Sector	1	2	3	4
Agriculture			*	
Energy				*
Petroleum			*	
Roads		*		
Housing		*		

Source: Field Survey, 2001.

1 - Not at all, 2 - Occasionally, 3 - Frequently, 4 - Religiously.
The responses on whether these sectors take into account the implications of the forest policy on their policies and programmes also followed the same pattern as above.

The above table shows that it is only the Energy sector that religiously takes into account the implications of forest policy in the design and implementation of their policy and programmes. This is not unconnected with the fact that forestry and the Energy Commission of Nigeria have a long history of collaboration from the 1980s, when they both worked on the National Fuelwood substitution programme.

However, the perception in the Petroleum industry that they take into account the implications of their plans on the forestry sector need be viewed with caution. This is so because if they do, the restiveness in the Niger Delta; as a result of massive loss of vegetation leading to less land for agriculture and pollution of water bodies; might not be at the prevailing high tension levels. It is, however, a positive sign that, at least, all the sector related to forestry consider the sector in enunciating their policies and programmes.

Stakeholder Involvement:

The NFAP was able to mobilise the rural communities to take part in forestry activities and this was more prevalent in the Northern states, where the participatory involvement of local communities was highlighted in the Second Forestry Project that was running concurrently with the NFAP. This was made possible by the fact that it was FORMECU that was coordinating the two programmes, therefore, at every opportunity where forestry is being discussed, the NFAP concept was propagated. Most importantly, the World Bank that was the Executing agency for the Nigerian NFAP also provided the funds for the second forestry project and at every supervisory mission, the level of NFAP integration into the second forestry project was assessed. This was principally because the World Bank made the successful integration of the NFAP as a pre-condition for providing financial assistance for the then proposed Third Forestry Project for Nigeria.

In spite of these efforts at the local level, no new interest group emerged as a result of the NFAP process. However, some NGOs that were already existing incorporated forestry activities into their regular mandates. Although many NGOs concerned with the environment have emerged in Nigeria, it can not be said that they were as a result of the NFAP, because their focus is mainly on the environment in its entirety. Most of them also blossomed during the Military dictatorship when the international community deserted Government related activities but embraced the civil society especially the NGOs.

Similarly, no new women organisations were formed but the existing ones incorporated tree planting as part of their activities, e.g. Women in Agriculture (WIA),

The fore-going discussion shows that, in as much as the NFAP did not lead to the formation of new organisations, the existing ones were encouraged to be more involved in promoting forestry activities.

With specific reference to the private sector, very little was achieved by the NFAP. This is very much connected with the fact that participation of this sector is anchored on the assurance of deriving profits from investments and the economic situation in Nigeria as at when the NFAP planning phase was on-stream was very dismal. As a matter of fact, a number of private firms involved in forestry activities, especially saw-milling, were known to have closed-down during this period because of low returns on investments.

Investments in the Forestry Sector:

Current level of investment as compared with the situation prior to the Commencement of NFP.

The sources and level of funding for forestry development programmes are exhaustively discussed in 3.3. The budgetary allocation to the SFDs and FDF are shown in Tables 3.10 and 3.8 respectively. The major financial input to SFDs that can be directly linked to NFP process was the ₦100,000 (US$10,000) requested annually of each state government to contribute towards the TFAP. This amount was expected to be released to SFDs as a special grant or built into their annual budgetary provision. Most states obliged and made the money available between 1992 and 1996, while Lagos, Delta and Jigawa states exceeded the target. Lagos State released the sum of ₦2million (US$200,000) annually, while Delta State and Benue State budgeted the sum of ₦300,000(US$30,000) and ₦500,000 (US$50,000) respectively. Apart from the above, there has not been significant improvement on the level of funding of forestry programmes by the state governments. The Federal Government, on the other hand, provided the sum of ₦1.862 million (US$186,200) to support the TFAP process. This amount was essentially utilised for data collection and to support the activities of the NCU and RCU.

Programmes/areas that have received attention on account of the NFP process.

The inherent deficiencies in the current National Forest Policy and inadequate legislative provisions were highlighted in 2.2. Concerted efforts made at addressing these areas include the setting up of a National Forest Policy Review Committee as noted in 2.2.2. More than ever before, greater emphasis is now placed on community participation in forest management. As an addendum to the Environmental management Programme (EMP-Forestry node) sponsored by the World Bank, a Participatory Forest Reserve management Programme (PFRMP) hinged on community participation was executed in 3 out of the proposed 5 forest reserves located in different parts of the country, as a representation of the different ecological zones in Nigeria.

The project, which has been successfully executed, engendered the interest and participation of the local stakeholders. The President of Nigeria, Chief Olusegun Obasanjo, shortly after assumption of office noted with dismay the precarious state of the country's forest resources and therefore directed the forestry department to bring up a comprehensive scheme to abate the situation. This led to the development and approval of the blue print on National Forestry Programmes to run from the year 2000 to 2003. This scheme was essentially derived from the NFAP and the Federal Executive Council (FEC) approved the budgeted estimate of N11.25billion (US$112.5 Million) to execute the programme. It is, however, hoped that funds would be released whenever required to run the programme.

Sources of Investment in Forestry since the commencement of the NFP.

Funding of forestry programmes comes primarily from federal and state governments and the international community. The budgetary allocation to SFDs and FDF are discussed in Chapter 3. The specific allocations to TFAP by the states and federal government were also noted in 2.4. Between 1991 and 1997, the UNDP provided the sum of N695.5million (US$695,500) for the TFAP process. In 1994, FAO funded a Neem Disease eradication project in the Northern states with a sum of US$155,000. The World Bank gave a grant of US$3.5million for the execution of the EMP, which lasted between 1992 and 1997.

Other internationally funded programmes are:

i. ADB Forest Resources Study for the sum of US$4million;
ii. ADB Forestry Development Project for US$140million;
iii. Global Environment Facility (GEF) National Parks Management for US$8.3million;
iv. Funding of the Review of Forest Policy by Ford Foundation.

The dividends of NFP in terms of resources mobilisation at the National level have not been substantiated. However, every state has in place a State Forestry Action Plan awaiting implementation. Also, reactions from the international community are encouraging. The efforts of Ford Foundation and World Bank on Forest Policy review and forest reserve management respectively have earlier been discussed. The Federal Government is currently negotiating with the World Bank for a project on Micro-Watershed and Environmental Management Programme (MEMP). This project which is expected to cost about US$100million will be multi-sectoral and community based with strong forestry component. Already, the GEF Governing Council has approved the sum of US$8.3 million for the Biodiversity Component of the programme as earlier noted. The investment in forestry development is summarised in Appendix 10.

Measures taken to promote private sector investment in Forestry:

Several factors have been militating against private investment in Nigeria. Paramount are insecurity of land and tree tenure, long gestation period of trees and inadequate information on tree silviculture. Several steps have therefore, been taken to encourage more people to invest in forestry in the country. These include

a. **Federal Government incentive to private participation in forestry.**
The Federal Government of Nigeria in its annual budget release for 1998 introduced a lending initiative specifically targeted at the participation of the private sector in forest establishment. The lending initiative guarantees fixed lending rates of up to 80% and varying repayment schedules dependent on the forest product envisaged. These include 15 to 20 years for timber, 8 to 10 years for fuelwood and 5 years for the establishment of fruit trees.

b. **Distribution of forestry inputs.**
Another important incentive for private sector participation is the distribution of tree seedlings, at no cost to the recipient, by the Federal and State governments. This provided tremendous encouragement to the rural dwellers, especially farmers, who plant the seedlings on their farmlands. More than 197,000 contact farmers benefited from such scheme under the second forestry project (World Bank, 1997). This led to the establishment of about 4,882 ha of private woodlots in the northern part of the country. This seedling distribution was further complemented by the award of monetary rewards to the outstanding farmers and communities.

Capacity Development.

Human Resources.

Table 2.2: Manpower Disposition at the Federal Department of Forestry. Pre-NFAP

CADRE	NUMBER
Professional	170
Technical	220
Vocational	633
TOTAL	1,023

Source: Federal Department of Forestry, 1999.

The manpower disposition shown above depicts the situation before the commencement of the NFAP at the Federal level. It is worth mentioning that the low level of professionals is not indicative of unavailability of trained professionals. This assertion is further supported by the ensuing Table 2.3, which shows that 210 members of staff have degree qualifications, while 135 possess Higher national Diplomas. The reason for this disparity is that the 170 were employed into the Federal Department and placed on the officer cadre while others who had degrees were equally employed but due to lack of vacancy in the professional cadre, they were recruited under the technical cadre.

Table 2.3: Manpower Disposition at The FDF by Academic qualification.

Category	Ph.D.	M.Sc.	B.Sc.	HND	OND	NCE	WASC/GCE	TTC	PRIMARY
Professionals	5	59	146	-	-	-	-	-	-
Technical	-	-	-	135	93	4	-	-	-
Vocational		-	-	-	-	-	170	152	301

Source: Federal Department of Forestry, 1999.

At the state level, the manpower disposition for the existing 30 states and the Federal Capital Territory as at then, is shown in Table 2.4 below.

Table 2.4: Manpower Disposition of the states' forestry departments. Pre- NFAP.

State	Professional Staff	Technical Staff	Vocational Staff	Support Staff	Male/female ratio	Total
Jigawa	8	88	193	188	5:1	477
Kaduna	NA	NA	NA	NA	NA	NA
Kano	17	55	350	106	103:1	528
Katsina	6	23	231	NA		260
Kebbi	13	29	169	NA		211
Niger	3	86	92	20		201
Sokoto/Zamfara	18	28	389	62	7:1	497
FCT	8	9	28	90	4:1	135
Abia	7	10	32	76	NA	125
Akwa-Ibom	NA	NA	NA	NA	NA	-
Anambra	NA	NA	NA	NA	25:1	-
Benue	8	42	120	140		310
Cross River	19	47	196	158	2:1	420
Enugu	6	19	196	NA	3:1	221
Imo/Ebonyi	8	26	171	NA	3:1	205
Rivers/Bayelsa	11	27	109	28	10:1	175
Adamawa	16	75	80	152	30:1	323
Bauchi/Gombe	12	91	338	20	9:1	461

Borno	13	148	422	426	38:1	1009
Plateau/Nasarawa	8	41	159	65	26:1	273
Taraba	6	39	292	NA	24:1	250
Yobe	5	35	125	85	25:1	202
Delta	11	15	71	105	NA	515
Edo	24	37	454	NA	NA	233
Kogi	4	24	111	94	6:1	333
Kwara	11	52	107	163	NA	56
Lagos	-	3	53	NA	-	284
Ogun	14	29	241	NA	-	214
Ondo/Ekiti	25	73	116	NA	-	146
Osun	17	36	93	NA	-	123
Oyo	7	24	92	NA	-	

Source: FORMECU, 1996

Table 2.5: Manpower Disposition at the Federal Department of Forestry. Post NFAP

CADRE	NUMBER
Professional	100
Technical	170
Vocational	533
TOTAL	803

Source: Field Survey, 2001.

The reduction in the manpower strength in the Federal Department of Forestry was due to retirements (8), deaths (4) and transfer to other departments with the creation of the Federal Ministry of Environment. It is important to note that there has been no employment into the professional and technical cadre since 1990 because of the embargo placed on employment by the Federal Government of Nigeria. However, the creation of the new ministry is expected to lead to more employment.

Table 2.6: Manpower Disposition of the states' forestry departments. Post-NFAP

State	Professional Staff	Technical Staff	Vocational Staff	Support Staff	Male/female ratio	Total
Jigawa	15	103	213	188	5:1	519
Kaduna	NA	NA	NA	NA	NA	NA
Kano	27	95	400	206	103:1	728
Katsina	10	33	270	NA		313
Kebbi	13	29	169	NA		211
Niger	10	90	107	55		262
Sokoto/Zamfara	22	40	389	90	7:1	515
FCT	15	19	51	140	4:1	275
Abia	10	15	48	76	NA	159
Akwa-Ibom	NA	NA	NA	NA	NA	-
Anambra	NA	NA	NA	NA	25:1	-
Benue	8	42	120	140		310
Cross River	19	47	196	158	2:1	420
Enugu	6	19	196	NA	3:1	221
Imo/Ebonyi	8	26	171	NA	3:1	205
Rivers/Bayelsa	11	27	109	28	10:1	175

Adamawa	16	75	80	152	30:1	323
Bauchi/Gombe	12	91	338	20	9:1	461
Borno	13	148	422	426	38:1	1009
Plateau/Nasarawa	8	41	159	65	26:1	273
Taraba	6	39	292	NA	24:1	250
Yobe	5	35	125	85	25:1	202
Delta	11	15	71	105	NA	515
Edo	24	37	454	NA	NA	233
Kogi	4	24	111	94	6:1	333
Kwara	11	52	107	163	NA	56
Lagos	-	3	53	NA	-	284
Ogun	14	29	241	NA	-	214
Ondo/Ekiti	25	73	116	NA	-	146
Osun	17	36	93	NA	-	123
Oyo	7	24	92	NA	-	

Field Survey, 2001.

At the state level, it was difficult to get quantitative information for all the states on manpower disposition. However, for the states where information was retrieved, there were slight improvements over the figures shown in Table 2.6. The situation at the state level as depicted above showed an improvement. This could probably be due to the political dispensation in which most of the parties promised job creation. It is important to note that this increase in number has not translated to improved management of forest resources at the state level because the new staff employed have not been exposed to real forestry duties, due to the poor funding and facilities.

It must be mentioned that the forestry sector in the country lacks the effective capacity to carry out its statutory responsibilities. This is more obvious at the state level where there is little or no attention to capacity development except for the occasional attempts by the Federal Government through foreign funded programmes. At the Federal level, however, the situation is better but not sufficient especially with relation to evolving global trends in forestry development.

In fact, in a response to a questionnaire by the African Academy of Science on NFP in 1999, the Federal Department of Forestry stated that the forestry sector in Nigeria require training in almost all the areas of Forest Resources management and also the use of modern information and communication technology in forest resources management. In prioritising the training needs, the following were considered paramount:

a. Geographic Information System (GIS), Remote Sensing (RS) and Forest Information System (FIS);
b. Planning for Renewable Natural Resources Management;
c. Forest Management Planning;
d. Integrated Arid Land and Desertification Control and Management;
e. Environmental Conservation and Community Mobilisation; and
f. Environment and Development Issues.

It is thus obvious that forestry sector in Nigeria suffers from inadequate personnel and modern technologies and concepts of forest management. This is further buttressed by the fact that some of the participatory approaches to forestry development being adopted now are not using effective means of eliciting the full participation of the rural populace.

Infrastructural Resources:

In appreciation of the obvious dearth of infrastructural resources replete in the forestry sector, the NFAP highlighted the need for providing basic infrastructural capacity. Unfortunately, since the NFAP has not been implemented, the sector still suffers from a serious lack of equipment and facilities. Presently, most SFDs do not have any functional vehicle, neither do they have equipment to conduct inventories, surveys, etc. This invariably accounts for the low information generation in the sector.

Plan Conceptualisation:

The NFAP has contributed immensely to conceptualisation of plans for the forestry sector and has increased the capacity of the sector to plan for forestry development. At the Federal level, this has manifested in the production of a Forestry development programme for the country, which is discussed in details in Chapter 4. Equally, at the state level, the experiences gained during the planning phase of the NFAP is the framework being used for development of forestry programmes as affirmed by the Directors of Forestry consulted during the study. However, the capacity to implement the programmes as designed could be suspect.

Research and Technology:

The NFAP highlighted key issues that would require attention through research for use in the development of the forestry sector. Prominent amongst which was the establishment of a National Herbarium/Arboretum to facilitate the conservation of the diverse gene pool in the country. Also, a research agenda to include research and development of Non-Timber Forest products (NTFPs) to strengthen their production, utilisation and marketing, research into forest diseases control especially neem infestation, introducing Integrated Pest Management (IPM) etc. was also identified. However, since the NFAP did not proceed further than the planning phase, a clear assessment of this can not be made. Suffice it to mention that the Forestry Research Institute of Nigeria, which has the mandate for forestry research in the country, is still pursuing the areas of research that were highlighted in the early parts of this chapter. Thus, it is apparent that there have not been appreciable advances in forestry research as a result of the NFAP.

With regard to technology, the situation is a little better than the commencement of the NFAP. Although this situation is not a function of the exercise but rather a reflection of the dysfunctionality apparent in every facet of the Nigerian economy before the advent of the present democratic setting. It is relevant to mention that the NFAP recommended the need for the use of modern facilities in articulating forest management practices. Of note is the fact that the most advanced technology in the sector in Nigeria was acquired by FORMECU in the course of the various programmes it has coordinated. This includes an array of sophisticated computers for word processing, statistical analysis, remote sensing and GIS. Some states also acquired computers to assist in the implementation of externally funded projects.

Stakeholder Capacity:

Except for farmers in very few communities, especially in the North, and some community members that were part of the series of Regional NFAP workshops held in the four geographical regions of Nigeria (see Appendix 11), capacity of the other stakeholders to

pursue forestry activities was not enhanced. Unfortunately, the DFID fund for the Country Capacity Project did not materialise. The CCP contained a series of capacity building programme for the private sector, communities and the NGO communities. This would have contributed to increasing their capacity in pursuing forestry activities.

Intersectoral Discussion and Integrated Planning

A very prominent achievement of the NFAP in Nigeria was the championing of intersectoral discuss as a major plank of enunciating development programmes in the forestry sector. The establishment of technical committees and Advisory Councils as earlier explained in Chapter 1 was the main vehicle through which this was achieved. The NFAP also brought to the fore the realization that most of the problems in the forestry sector were caused by several overbearing externalities and as such, addressing them must incorporate all the relevant interests. The sustainability of this approach is evident in the fact that most of the states have imbibed the need for integrated planning in the management of their forest resources.

Adaptability of the NFP

As variously mentioned earlier, the NFAP did not proceed further than the planning phase, as a result, it has not been modified. However, in the context of other national forest programmes as enumerated in Chapter 1, important factors that necessitated the modification of their approach in subsequent programmes include the following:

(a) inability to address depletion of forest resources;
(b) population explosion, which requires adopting new methods to tackling deforestation and its related problems;
(c) obsolete assumptions that were not in consonance with developmental trends;
(d) top-bottom approach to planning, which did not sufficiently involve the stakeholders.

With regard to the capacity to regularly update the national forest programmes, it could be said that the forestry sector has developed the capability, in spite of glaring constraints. This capacity is enhanced by the existence of various internationally funded programmes in the country, that most often have capacity building as a major component.

By and large, the forestry sector especially at the Federal level has been responding promptly to demand for new forestry development initiatives, as in the case of the recent presidential call for a fast tract forest development programme for Nigeria.

Integration of NFP.

The NFAP has been completely integrated into the overall national planning process with its incorporation in the national rolling plan. It is worth re-iterating that the NFAP gave rise to the Forestry Development Programme, which at the moment is the major aspiration of the forestry sector in Nigeria. Most importantly, the NFAP report is the basis for the enunciation of other forestry-related programmes at the state level as well.

Capacity to review NFP.

The capacity to periodically revise the NFAP exists in the forestry sector, especially as most of the key players that formulated the plan are still in the forestry sector. On the other hand, those that are no longer in the sector are still very much involved in the NFAP discuss.

ECONOMIC VIABILITY OF NATIONAL FOREST PROGRAMMES.

Current level of production of goods and services.

Industrial wood production.

FORMECU(1994) gives the main industrial wood products to include sawnwood, particleboard, pulp/paper and poles. Most of the sawnwood is derived from the high forest areas of the southern part of the country through the 1470 sawmills. Species sawn include *Milicia excelsa, Enthradophragma Spp, Khaya Spp, Triplochiton scleroxylon*, to mention a few.

There are eight integrated plymills deriving their raw materials from the natural forests and plantations. Nigeria has 3 pulp and paper mills, publicly owned but presently not functional. The mills are designed to use plantation species namely *Gmelina arborea,* Pine and Eucalyptus Species. Poles come solely from plantations and woodlands.

Information on the actual level of wood production from the forests is scanty and of low reliability. The most authentic attempt at documenting the level of wood production on a national scale was the projection made by FORMECU (1994). Table 3.1 shows the projected production of industrial wood between 1990 and 2010.

Table3.1: Production of Industrial wood by product classes ('000m^3 roundwood equivalent).

Product Class	1990	2000	2010
Sawlog	3482.01	2996.03	2480.36
Veneer Log	162.66	136.12	114.46
Pulpwood	723.88	723,88	723.88
Poles	1436.63	1217.61	1153.00
Total	5805.18	5073.64	4471.70

Source: FORMECU, (1994)

The proportion of product classes by forest types is shown in Table 3.2 below.

Table 3.2: Production of Product Classes by Forest Types (%).

Forest Type	Sawlog	Veneer Log	Pulpwood	Poles
Woodland	10.0	0.0	0.0	25.0
Forest	83.0	5.0	0.0	5.0
Mangrove	0.0	0.0	0.0	10.0
Plantation	20.0	0.0	30.0	25.0

Source: FORMCEU (1994)

As at the time of this projection, the only area data available for the computation was the land use and vegetation data for Nigeria (Allen, 1981). A dereservation rate of 1.2% was assumed for the forest reserves, while the deforestation rate of 2.6% was taken for the free areas. However, these assumptions are not in conformity with the FAO assessments for 1980 and 1990 indicating a rate of deforestation of about 3.5%. The plantation areas were rightly based on the actual areas established.

Fuelwood Production.

Fuelwood constitutes the major source of energy for the rural people to meet their needs for cooking and heating. It has been asserted that fuelwood together with charcoal and other biomass resources account for over 50% of national primary energy consumption (FORMECU, 1996). As with the industrial wood production, statistics on fuelwood production have been derived from projections but using forest areas, Mean Annual Increments (MAI) and deforestation rate as variables. World Bank (1991) put fuelwood production in 1990 at 85 million m^3 decreasing to 74 and 65 million m^3 for the years 2000 and 2010 respectively. The most recent projection on a national scale was done by FORMECU in 1994 and shows a consistent decline in production from 1994 to 2010 (Table 3.3).

Table 3.3: Production of fuelwood by ecological regions in Nigeria ('000M^3).

Ecological Region	1994	1995	2000	2005	2010
High Forest	68,705	67,840	63,518	60048	56075
Guinea Savanna	7,861	7635	6500	6149	5797
Sudan Savanna	3,163	3267	2767	2748	2359
Total	79,929	78742	72785	68945	64731

Source: FORMECU (1994)

Expectedly as seen clearly from the projections that the greatest percentage of fuelwood in Nigeria comes from the High Forest, while the Sudan savanna with its scanty vegetation and low regeneration rate produces the least.

NTFPs.

A comprehensive assessment of the production and consumption of NTFPs was hitherto lacking until FORMECU (Okafor et al, 1994) commissioned a study to evaluate the collection, processing and marketing of NTFPs in Nigeria. The study came out with an estimate of annual rates of extraction, consumption and market sales of NTFPs by individual households in the country (Table 3.4). The report, which attests clearly to the importance of NTFPs in Nigeria equally provides a succinct picture of the common NTFPs, their distribution and uses.

Table 3.4: Estimate of Annual Rates of Extraction, Consumption and Market Sales of NTFPs by Ecological Zones.

Ecozone	Major NTFPs	Annual Quantity Harvested per Household	Average Annual Consumption per Household (QTY)	Average Annual marketed by Household (QTY)
Mangrove Forest	Fuelwood	900m^3	54m^3	846m^3
	Wildlife(Periwinkle)	5,500Kg	50Kg	5,450Kg
	Mangrove native salt	125Kg	2Kg	123Kg
Moist Forest	Palm Oil	422 litres	72 Litres	360 litres
	Rattan	2,340m^3	Nil	2,340 m^3
	Chewing Stick	600 billets	Nil	600 billets
	Palm wine	4,113 litres	411 litres	3,812 litres
	Irvingia gabonensis	25Kg	5Kg	20Kg

	Wildlife (numbers)	52	26	26
Southern Guinea	Fuelwood	85m^3	42m^3	43m^3
	Parkia seeds	500Kg	10Kg	490Kg
	Mushroom	1,699Kg	25Kg	1,575Kg
	Shea Butter	42Kg	Nil	42Kg
	Wildlife (numbers)	120	30	90
Sudan Savanna	Fuelwood	28m^3	14m^3	14m^3
	Vegetables (Kuka)	75Kg	25Kg	50Kg
	Fodder(*A. albida)*	450Kg	Nil	450Kg
	Gum Arabic(A. Senegal)	160Kg 28Kg	30Kg Nil	150Kg 28Kg

Source: Okafor et al, (1994)

Ecological Services.

The Nigerian Forests have been acknowledged to provide numerous ecological and environmental services, which support sustainable economic development. The environmental values of forests are noticeable in the regulation of climate and mitigation of natural disasters including desertification.

Some of the economic values of forests in Nigeria can be estimated by their opportunity costs. Okojie, (1994), reports that the environmental problems resulting from deforestation is causing about US$5 billion of damage per annum. He concluded that the amount could be taken as part of the economic values of the country's forests.

Long Term Sustainability of Production of Forest Goods and Services.

The long-term sustainability of production of forest goods and services could be viewed from two angles. The first option is to relate demand with production and assess if they match. On the other hand, the actual yield from the forests could signify their inherent potential to cope with demand. However, the second option might not be feasible in the present circumstances, due to the unreliable or non-existent aggregate values for the country.

TABLE 3.5: COMPARISON OF PRODUCTION AND DEMAND OF INDUSTRIAL WOOD IN NIGERIA ('000M3 ROUNDWOOD VOLUME)

	2000			2010		
WOOD TYPE	PRODUCTION	DEMAND	BALANCE	PRODUCTION	DEMAND	BALANCE
SAWLOG	2996.03	6378.00	-3381.97	2480.36	10,205	-7724.64
VENEER LOG	136.12	650.00	-513.88	114.46	1,078.00	-963.54
PULPWOOD	723.88	410.00	313.88	723.88	760.00	-36.12
POLES	1217.61	2183.00	-965.30	1153.00	2729.00	-1576
TOTAL	5073.64	9621.00	-4547.36	4471.70	14,772.00	-10.300.30

Table 3.5 gives a comparison between production and demand of industrial wood as projected by FORMECU (1994). It is glaring from this Table that demand far outstrips production except in the case of pulp and paper which reflects deficit for year 2010 only. The surplus recorded for this product in 1990 and 2000 is not surprising given the fact that the existing mills are currently dormant. The deficit recorded for the other wood types have far reaching implications, not only on sustainable production of goods and services but also on the nation's forests. As demand exacerbates, more pressure would be mounted on the

existing forest resources, to the extent that the forest estates might not be able to cope. It is apparent, therefore, that deforestation would increase exponentially to the detriment of the environment.

The picture is similar with the fuelwood as indicated in Table 3.6. It is noticed that aggregate production at the national level shows surplus over demand up till 1995. However, deficit sets in from year 2000, increasing appreciably over time. Furthermore, the deficit is more obvious in the Sudan and Guinea Savanna, which currently experience shortfalls because of low production. Unfortunately several studies have shown that it is not economically viable to transport fuelwood over a distance of 80Km from its primary source. This makes it unattractive for marketers to transport fuelwood from the South to these zones.

Table 3.6: Comparison of production and demand of fuelwood in Nigeria (000m^3).

	1994			1995			2000	
ECOLOGICAL REGION	PRODUCTION	DEMAND	BALANCE	PRODUCTION	DEMAND	BALANCE	PRODUCTION	DEMAND
HIGH FOREST	68,706	33,361	35344	67,840	33,895	33,945	63,518	38,911
GUINEA SAVANNA	7,861	22,464	-14,603	7,635	22,808	-15,173	6,500	25,033
SUDAN SAVANNA	3,163	16,054	-12,891	3,267	17,054	-13,787	2,767	19,577
TOTAL	79,729.00	71,879.00	7850.00	78,742.00	73,757.00	4,985	72,785.00	8U3,521.00

	2005			2010		
ECOLOGICAL REGION	PRODUCTION	DEMAND	BALANCE	PRODUCTION	DEMAND	BALANCE
HIGH FOREST	60,048	40,832	19216	56,565,00	41,062	15,513
GUINEA SAVANNA	6,149	26,271	-20,122	5,797	26,417	-20,620
SUDAN SAVANNA	2,748	20,118	-17,370	2,359	20,660	-18,301
TOTAL	68,945.00	87,221.00	-18,276	64,731.00	88,139.00	-23,408

Source: FORMECU, (1994)

The unsustainable level of production of fuelwood in Nigeria is likely to continue for some time as long as the energy crisis facing the country remains unresolved. The country still witnesses erratic supply of petroleum products (Kerosene and Gas), and when available the prices are beyond the reach of ordinary people. The implication is not far fetched, as more people will resort to fuelwood, which is already in short supply.

As noted before, there is no systematic study of the yield and consumption of NTFPs in Nigeria. However, FORMECU (1996) reports that there are shortages of NTFPs resulting from a combination of several factors including deforestation, uncontrolled exploitation by an expanding population and unsustainable harvesting.

The long term ecological services rendered by the forests will definitely be hampered by the low priority given to their management and valuation. The full effects on forest destruction are usually not realised until the short-term benefits of their destructive use have been fully enjoyed and of course, the environment would be worse off in the long run.

Resource requirements to manage forests sustainably to generate goods and services at the current level.

It is imperative from the discussion in 3.1.4 that the current level of production of goods and services from the country's forests is not sustainable. It will, therefore, be irrational to think of the

resource requirements to maintain that status quo. On the other hand, FORMECU (1996) in the National Forests Action Programme (NFAP) proposed for the country computed a reasonable level of resources that would be required for the different programme areas needed to achieve sustainable forestry development in Nigeria.

Table 3.7 gives an investment outlay required for a sustainable forestry development in Nigeria, over a period of 5 years. It is anticipated that at such levels of investment, which is expected to involve both the private and public sectors, the sustainable level of production from Nigeria's forest resources could be reversed from the projected deficit to a sufficiency level. The proposal in Table 3.7 has apportioned more responsibility to the Federal Government, especially over the State Governments. This is understandable, given the present revenue earning capacity, which is considerably in favour of the Central Government, which takes about 58% of the country's total revenue.

Table 3.7: Estimated investment requirements for forestry development in Nigeria (US$Million).

PROGRAMME	DONOR	FEDERAL	STATE	LOCAL GOVT.	COMMUNITY	PRIVATE	TOTAL
1. Forest Management Programme (FMP)	23.5	8.8	4.9	1.35	1.35	3.3	43.2
2. Social Forestry Programme (SFP)	14.3	8.05	2.5	0.75	3.5	3.0	30.1
3. Forest Industry Development Programme (FIDP)	2.0	2.3	0.8	0.5	-	5.2	10.8
4. Institutional Strengthening Programme (ISP)	7.0	4.45	-	0.35	-	-	12.8
TOTAL	46.8	23.6	9.2	2.95	4.85	11.2	96.9

Source: FORMECU (1996)

The private sector is construed to include entrepreneurs, NGOs and financing institutions, whose support might not necessarily be loan-related. Private sector involvement would be critical in three areas, namely:

(I) tree planting on agricultural lands, communal lands, fuelwood production and development of woodlots;

(ii). Industrial entrepreneurs investing in plantations for timber production; and

(iii) Large scale commercial companies investing in the expansion of their wood processing factories. The contribution of the communities is expected to be mostly in kind. This can come in the form of labour and resources to plant trees on farms, degraded lands, hillside protection, plantations and woodlots.

Current level of Inputs to Forestry development in Nigeria.

Governments.

Like other development sectors, forestry in Nigeria is funded through the normal annual budgetary allocations by the various tiers of Government. As noted in Chapter 1, the forests are held in trust by the states and local government councils for the communities. However, forest management per se is carried out by the state governments who have access to limited funds and personnel required for forestry development. Greater emphasis will, therefore, be placed on funding of forestry operations at the state level.

The SFDs are not always forthcoming in providing information on their budgetary allocations (Federal Department of Forestry, 2000). Their response to questionnaires on budgetary allocations points to the fact that SFDs are hardly considered for Capital allocation by the state governments. The funds provided are usually to cover salaries and wages plus a few miscellaneous activities. The most comprehensive data available on budgetary allocation was given by FORMECU (1996) for 1992. The data is nonetheless indicative of the level of funding of SFDs in the country.

It is clear from Table 3.10 that not more than 1% of funds proposed for forestry programmes are actually released to the SFDs. Most of this "real" budget is also devoted to payment of salaries and wages. Consequently, vehicles are left abandoned. It is not surprising, therefore, to notice very low activities in most states, resulting in dwindling staff morale.

The Federal Department of Forestry has not fared better with respect to funding. Table 3.8: shows the Federal allocation to FDF between 1989 – 1999. On the average, budgetary allocation to the department is only about 3.45% of the total allocation to the supervising ministry. The allocation could barely meet the cost of staff salaries and some essential services. Consequently, there has been low funding of the field offices, which have no facilities to carry out their normal duties. Most of the infrastructures, including the Sawmill Training Centre, Benin-City and the Manpower Development Centre at Oluwa, are already decaying. FORMECU that used to enjoy buoyant financial resources is equally cash-strapped since most of the programmes it monitors have been concluded. The overall implication is that FDF and its organs have been incapacitated by lack of funds to effectively discharge its statutory roles despite the availability of skilled personnel.

Table 3.8: Federal allocation to Federal Department of Forestry, 1989 – 1999.

YEAR	ALLOCATION TO MINISTRY (N'000)	ALLOCATION TO FDF (N'000)	% OF ALLOCATION	REMARKS
1991	265,569,690	10,649,240	4.0	The % allocation represents ratio of distribution between forestry and the Ministry.
1992	305,055,000	12,000,000	2.45	
1993	656,891,000	10,966,080	1.67	
1994	425,200,000	20,460,000	4.8	
1995	1,432,203,218	39,000,000	2.72	
1996	1,986,451,500	27,495,000	1.38	
1997	3,800,000,000	100,000,000	2.65	
1998	N/A	N/A	N/A	
1999	828,265,000	66,000,000	7.96	

Source: FDF (2000)

Forestry at the local government level is seen as a revenue-generating venture and as such, not given any consideration in routine budgetary allocation.

International Funding Agencies.

The precarious financial situation hampering forestry development in Nigeria has drawn the attention of International Funding agencies since the 1980s. A list of forestry programmes financed by external donors is shown in Table 3.9 most of this financial support, which was secured through the Federal Government (FDF/FORMECU), are to address areas of serious deficiency in forestry development in the country. It is interesting to note the correlation between external funding (Appendix 8) and Budgetary allocation by states (Appendix 7). The states that enjoy external funding are those with substantial allocation, most cases as counterpart funding, which they are compelled to contribute before they could benefit from external assistance.

Private funding:

The low level of private participation in forestry development was noted in Chapter 1. The long gestation period of forest goods has been a serious dis-incentive to private participation in Nigeria. This is further compounded by issues relating to land tenure, which constrict land into strict ownership structure. Private financial input to forestry development in Nigeria had, therefore, been very low and in most cases geared towards small plantations to meet local consumption. Inputs to community forests are normally not in strict financial terms but in communal labour and support. The NGOs are mostly involved in forestry extension and advocacy, but less concerned with direct financing of forestry development programmes.

Current level of outputs and services generated:

The sources of revenue generated by SFDs vary from the south to the North. Timber and related exploitation account for more than 70% of revenue accruing to the southern SFDs. These are mainly charges such as stumpage, Out Turn Volume (OTV)*, registration of sawmills and property hammers. Others include chainsaws permit and penalty from offences.

OTV involves fixing the price of timber at specific rates per unit volume and species. The buyer under OTV system pays a fee, which is determined by the rate per unit volume and based on the actual timber extracted.

TABLE 3.11: ANNUAL TOTAL REVENUE GENERATED BY STATES IN NAIRA (₦).

	TOTAL REVENUE PER YEAR						
STATE	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
ABIA	-	219,390	130,603	160,622	394,626.02	-	
ADAMAWA*	-	2,200,000	35,222	-	-	-	
AKWA IBOM	276,640	229,700	203, 658	276,124	728,089	345,951	552
ANAMBRA	-	158,694.71	291,551.10	211,500.15	287,378.70	-	
BAUCHI*	14,594.00	21,022.50	20,236	26,884	4,916	-	
BAYELSA	-	-	-	-	-	-	140
BENUE	-	-	-	-	-	368,529	624
BORNO	800,550	864,250	1,061,266	1,118,234	1,501,538	-	
CROSS RIVER	2,000,059	2,000,049	2,000,078	8,000,000	14,000,078	11,000,021	14,000
DELTA	-	1,881,901	1,755,620	1,654,300	1,478,200	1,538,560	1,425
EBONYI	-	-	-	-	-	-	71,07
EDO	1,819,223	4,892,322	5,535,476	16,007,371	25,439,121	11,802,182	71,481
EKITI	-	-	-	-	-	7,906,661	20,836
ENUGU	-	71,923.69	73,685.00	137,462.20	1,554,833	93,517.60	252
FCT	-	20,000	50,000			-	
IMO	-	182,831.45	421,557.7	428,241.35	583,967.70	519,936	503
JIGAWA*	-	-	-	30,000	32,835	26,750	40
KADUNA*	-	-	-	-	-	-	
KANO*	-	-	-	-	-	-	
KATSINA*	35,915	42,850	75,793	98,250	120,275	342,280	335
KEBBI	-	25,198	1,725	3,412	9,048	2,400	93
KOGI	-	1,500,000	1,100,000	4,970,000	6,569,000	3,000,000	6,500
KWARA	307,878	450,569	261,177.8			-	
LAGOS	82,705	-	-	413,900	793,205	1,051,875	899
NASARAWA*	-	-	-	-	-	-	
NIGER*	610,875	288,549	226,386			-	
OGUN	-	-	2,177,325	4,057,493	9,447,693	14,683,727	44,894
ONDO	101,016,334	76,219,227	72,009,071	96,440,773	101,016,334	76,009,071	72,009
OSUN	183,331	2,008,282	3,973,910	5,558,871	30,070,889	13,877,934	52,228
OYO	990,027	618,266	1,468,170	1,879,662	1,891,772	12,469,420	18,822
PLATEAU *	28,000	193,993	15,000			48,812	53
RIVERS	113,242	95,745	75,200	94,296	257,907	101,152	118
SOKOTO *	-	5,000	6,000			353,420	475
TARABA *	8,987	20,489	18,566	21,796	34,410	-	
YOBE *	`-	28,000,000				-	
ZAMFARA*	-	-	-	-	-	-	54

*Source: FDF (2000) * - Northern States*
Field survey (2001)

The Northern SFDs due to the prevailing scanty vegetation, derive their revenue mainly from NTFPs, especially fuelwood, poles, Gum Arabic, fruits, oil, locust beans, game hunting, tannin, among others. Table 3.11 gives a picture of the annual revenue generated by SFDs between 1990 and 1999, while Table 3.12 reflects the average percentage contribution of the forest products group to annual forest revenue. It is instructive to note that the level of revenue generated by states depends on their forest resources endowment, the prevailing management system, the tariff in operation and general revenue drive. It can be seen from Table 3.11, however, that the forest-rich south generates more revenue than the dry North. The ecological services provided by the forests are not quantified in monetary terms, thus giving the erroneous impression that revenue generation from forestry sector is insignificant.

TABLE 3.12: PERCENTAGE CONTRIBUTION OF THE FOREST PRODUCTS GROUP TO ANNUAL FOREST REVENUE.

STATE	TIMBER	POLES	FUELWOOD	NTFP	LICENSES/PERMITS	PULPWOOD	OTHERS
ABIA	55	7	1	11.5	25.5	N/A	N/A
AKWA-IBOM	10	2	5	45	38	N/A	5
ADAMAWA	N/A	10	50	20	20	N/A	N/A
ANAMBRA	45	15	5	-	35	N/A	N/A
BAUCHI	N/A	N/A	20	N/A	60	N/A	20
BENUE	52	13	9	27	3	N/A	1
BORNO	N/A	N/A	30	55	15	N/A	N/A
CROSS RIVER	70	2	1	5	20	2	N/A
DELTA	30	20	N/A	10	40	N/A	N/A
EDO	74	N/A	1	10	10	N/A	5
ENUGU	20	19	18	N/A	43	N/A	N/A
IMO	48	6	1	14	31	N/A	20
JIGAWA	N/A	N/A	50	30	20	N/A	N/A

KADUNA	N/A	90	5	N/A	5	N/A	N/A
KANO	N/A	30	50	20	N/A	N/A	N/A
Katsina	N/A	80	15	N/A	5	N/A	N/A
KEBBI	N/A	N/A	30	60	N/A	N/A	10
KOGI	80	5	10	5	N/A	N/A	N/A
KWARA	45	N/A	N/A	N/A	5	50	N/A
LAGOS	N/A	N/A	N/A	20	80	N/A	N/A
NIGER	30	N/A	N/A	N/A	10	60	N/A
OGUN	80	N/A	N/A	2	18	N/A	N/A
ONDO	90	10	N/A	N/A	5	N/A	N/A
OSUN	60	10	N/A	N/A	30	N/A	N/A
OYO	71	N/A	5	5	15	N/A	N/A
PLATEAU	30	N/A	60	N/A	10	N/A	10
RIVERS	57	3	10	10	20	N/A	N/A
SOKOTO	N/A	N/A	35	55	10	N/A	N/A
TARABA	15	25	40	10	10	N/A	N/A
YOBE	N/A	N/A	20	80	N/A	N/A	N/A

SOURCE: FORMECU (1996)

Extent of cross-sectoral resource transfers and subsidization:

SFDs operate under a consolidated accounting system, whereby the revenue generated by each state forestry department are deposited in the state's central treasury. Funding of all sectoral developments is through this central treasury under routine budgetary allocations. The low level of revenue generation by SFDs was noted in 3.4. Unfortunately, it is apparent that sectoral funding by government has a lot of bearing on the actual financial output from each sector. It was noted also that the ecological services, which if translated into Naira would run into billions, are not recognized as part of the financial output from the forests. This scenario should, therefore, naturally call for subsidization of forestry development programme in the country but this has not been the case. The existing sources of funding and leverages to support forestry development programmes outside the annual budgetary provisions are discussed below:

Forestry Trust Fund:

The Federal Department of Forestry was desirous of creating a situation whereby part of revenue generated from the forests is ploughed back for forestry development. The FDF, through the NFDC, therefore, impressed it on the Federal Government to issue a directive to SFDs to create Forestry Trust Fund (FTF), where a percentage of royalties collected is deposited. FTF is expected to act as a vehicle that would ensure re-investment in the forest resource base, most especially in forest regeneration. Since the directive was issued in 1993, only six states had complied (Table….). It is seen that most northern states have shown apathy to the fund. This might not be unconnected with the dual ownership status on forest resources in the northern states. While the SFDs manage the forest estate, the local government collects the bulk of revenues accruing from the forests.

Ironically, FDF (2000) reports that some of the states with FTF have not judiciously utilized the funds. This was prevalent during the Military Era, when the funds were expended on other purposes e.g. payment of salaries and other non-forestry related development projects.

Table 3.13: Contribution to Forestry Trust Funds.

STATE	Allocation to FTF as a Percentage of Total Annual Revenue. (%)
EDO	20
ONDO	25

EKITI	25
OYO	25
OSUN	25
OGUN	25

Source: Federal Department of Forestry, (2000).

Ecological Fund:

The Federal Government in 1981 in an attempt to address the growing inability of conventional funding sources to solve pressing ecological problems established the Ecological Fund (EF).

At inception, the fund attracted 1% of the total revenue generated by the country but this figure was raised to 2% in 1992.

The fund is managed by the National Committee on Ecological problems and can be applied to solve problems in the following areas:

a. Soil, Coastal Erosion and Flood control.
b. Desertification and Drought control
c. Oil Spillage and Pollution
d. General Environmental Pollution (Solid waste management, Industrial Pollution, Water hyacinth infestation).
e. Relief to victims of natural disasters.

The forestry sector benefited indirectly from the allocations to (a) and (b) since the intervention in these areas entails forestry operations especially tree establishment by SFDs.

Sustainability of National Forest Programmes at Current Level of Inputs and Outputs.

An analogy of budgetary allocation (input) and revenue generated (output) by SFDs can be made between Tables 3.10 and 3.11. From whatever angle it might be viewed, it is apparent that the current level of inputs and outputs can not sustain a virile National Forest Programme in Nigeria. As noted before, states with fairly substantial allocations are those benefiting from externally funded projects, first as a pre-condition to secure the funds and secondly to meet the cost of salaries and wages. An insignificant part of the allocations goes for actual forestry operations. The revenue generated and budgetary allocation put together fall far below the projected resources required for sustainable forestry development in Nigeria (Table 3.7).

It is foolhardy to state that the revenue generated from the forests is optimal, as some issues are compelling:

(a) Inappropriate pricing of forest products. Olabode (1994) observes that increase in the price of forest products in Nigeria has been sluggish when compared with non-renewable resources (especially petroleum) and the devaluation of the country's currency. The situation is even more glaring with the stump prices charged by the states. Table 3.14 shows the trend of OTV charges between 1962 - 2000

Table 3.14: Trend in OTV Charges in Nigeria between 1962 and 2000 (Charges in US$/Cu Ft).

Years	Graded 1 Species*	Grade 2 Species **	Grade 3 Species ***
1962	2.08	1.73	0.55
1969	2.54	1.77	0.35
1974	2.50	2.77	0.69
1979	14.00	14.00	5.60
1988	78.5	44.00	33.66
1993	82.00	52.00	40.00
2000*	94.50	65.60	51.70

Source: Federal Department of Forestry, 2000.

Note: (a) Grade 1 Spp - Highly priced.
Grade 2 Spp - Medium priced Spp
Grade 3 Spp - Low priced Spp

(b) Exchange rate of Naira to Dollar
1980: N7.98 to 1 Dollar
1995: N83:00 to 1 Dollar
2000: N113:00 to 1 Dollar.

In general, the rates payable by wood extractors are low and do not reflect the status of available resources. Similarly, the prices of timber products in the timber market have no relationship with what the tree exploiters pay the government. Rather, they reflect the level of demand for the particular species.

In a study conducted by Geomatics (1997), it was revealed that the sawmillers are the main beneficiary of the proceeds of the forests since the price at which they purchase the timber from the state (stump price) is less than 10% of the price of the end product. When the total input including labour is considered, the sawmillers make more than 400% gain. There is, therefore, no gainsaying the fact that the low prices of forest products tend to encourage waste leading to further deforestation and minimal revenue from the sector.

(b) Undervaluation of forests: In Nigeria, state governments see the worth of the forests from the view point of the actual revenue generated by SFDs through royalties. Little consideration is given to the more crucial role of the forests in sustaining the ecological and environmental integrity of the country.

As noted by Gregersen et al (1995), it is crucial for policy makers, interest groups and the public to obtain reliable information on the environmental, social and financial values of the forests in order to move towards optimum use and conservation of forests. Viability of national forest programmes would remain in question so long as forests are viewed from narrow economic standpoint.

(c) Non-Transparent Actors in Revenue Generation: Both the government officials and forest exploiters have been indicted for the low level of revenue generation from the forests (FDF, 2000). Frequently, the forestry field staff colludes with the forest exploiters to avoid payment of appropriate fees for resources harvested. In addition, the forestry staff responsible for monitoring forest exploitation lacks the necessary facilities and equipment to carry out their duties. It is not uncommon for the rural communities bordering the forest

estate to exploit the forests free of charge. On the whole, it is viewed that less than 50% of forest exploitation generates revenue to government coffers.

The inherent lapses in forest revenue system have far reaching implications on sustainable forest management in the country. The low prices of forest products tend to encourage waste and further accentuate the rate of deforestation. The huge profit accruing to the forest exploiters has equally encouraged the rise in their number leading to further incursion on the dwindling forest resources. The low revenue generated and value ascribed to the forests attract low funding to the sector. Consequently, forestry development in the country is at its low ebb and might be hitting the rocks if urgent redressive steps are not taken.

NOTABLE SUCCESSES ON ACCOUNT OF NFP

The notable successes as a result of the NFAP could be better appreciated from an assessment of the originally set objectives. The broad objectives of the NFAP in Nigeria are:

a. Review of the Forestry Sector and Manpower development through individual and group training;
b. Formulation of a coherent development strategy for the forestry sector of Nigeria; and
c. Analysis of NFAP synthesis report through Round Table Conference of Partners.

Within the context of the above stated objectives, the Nigerian NFAP was able to realise the first two of its set out objectives.

Review of the Forestry Sector.

This review was encapsulated in a forestry sector review that was a pre-condition for the commencement of the NFAP process and was conducted under the framework of the NFAP with World Bank support. It is important to note here that the World Bank initially proposed the NFAP as a means of coordinating donor and national institutions' actions in the forestry sector through sector work and people participation. The ultimate goal is to channel resources to ensure the sustainability of the forest cover and forest development.

This review conducted an in-depth analysis of the forestry sector, as against the diagnostic surveys that was prevalent as at then, and identified the critical issues for forestry development so as to develop a consensus behind a concrete strategy and quantifiable targets. In the identification of these critical issues, it recommended further in-depth studies on areas where information gaps were highly noticeable. This provided the basis for the conduction of some specific studies.

The areas that were identified as critical to any attempt to address forestry development problems in the country and for which NFAP commissioned studies were:

(I) Women and Forestry in Nigeria;
(ii) Update of Supply and Demand Data;
(iii) Forestry Extension;
(iv) Study on Non-Timber Forest Products (NTFPs);
(v) Assessment of Data Requirements for Calculating Sustainable Yield;
(vi) Review of the Wood Based Sector in Nigeria;
(vii) Forest Revenue System Study for Nigeria;
(viii) TFAP, Nigeria: Findings of the preliminary Conservation and Environment Study;
(ix) TFAP: Country Capacity Project; and
(x) Rural Sociology Study

The above studies provided an information base for addressing gaps and identifying overlaps.

Manpower Development.

The NFAP provided individual and group training to both the formal and informal forestry sector, through workshops, seminars and specialised training. It is to the credit of the NFAP that some officers of the Federal Department of Forestry were trained on the use of computers. . Most importantly, considerable on-the-job training were also conducted.

Forestry Action Plans:

As at when Nigeria adopted the NFAP, there were 21 states. But by the time it came on stream, the states in the country have been increased to 31, including a Federal Capital territory. Forestry Action Plans were prepared for all the states and these were aggregated into four regional forestry action plans for the country. The existence of a Forestry Action Plan for the state government is now serving as the road map for any forestry development initiative.

Dialogue

One of the most important successes of the NFAP was the institutionalisation of dialogue between all the stakeholders in the forestry sector as a prelude to designing programmes. It has become imperative for most states department of forestry to now involve the stakeholders in any forestry initiative. A ready example is in Plateau State, where a programme on containing drought and desertification is being put in place with the active participation of the traditional rulers, local communities and state forestry officials.

This was further exemplified in the bringing together of the various stakeholders in the Advisory Council Technical Committees and the various working groups as contained in Appendix 2.

Master Plan for Forestry Sector Development.

The NFAP report is presently serving as the master plan for forestry development in the country. Recently, a Forestry Development Programme was developed for Nigeria and it was coined from the NFAP report. In the same vein, an Inter-Ministerial Committee was set up to prepare a complement to the Forestry Development Programme. The report, Inter-Ministerial Committee Report on Combating Deforestation and Desertification, adopted the Forestry Development Programme (FDP) and most importantly identified diversification of energy sources, with emphasis on renewable resources, as a means of reducing the growing threats of deforestation and desertification. This was a major plank of the NFAP.

Bottom-Up Programme Development.

A complete re-orientation from the erstwhile approach of developing programmes in offices before implementation has been achieved. In this wise, series of consultations are held with relevant stakeholders to determine needs, ascertain priorities and develop ameliorative measures. This method of programme design is central to new programmes being developed in the forestry sector in Nigeria. A good example is the Micro-Watershed and Environmental Management Programme (MEMP) currently under preparation. This IDA and GEF financed programme is based on community driven investments in addressing degradation problems. FORMECU, under the supervision of the Planning, Research and Statistics Department of the FME is presently mainstreaming this preparation phase. Considerable experience gained under the NFAP is being put into use in the conceptualisation of this programme.

Data Collection.

The need for adequate data for efficient planning of programmes was seriously highlighted by the NFAP. In this wise, it was able to inculcate the culture of data collection into practitioners of the forestry sector. It must, however, be mentioned that this is at times hampered by lack of facilities and adequately motivated staff.

FACTORS RESPONSIBLE FOR THE POOR IMPLEMENTATION OF THE NFP.

In as much as the NFAP was able to actualise two of its three objectives, its inability to proceed further was a serious setback for the programme in Nigeria. Important factors that contributed to this include the following:

(1) Political Instability: The designation of Nigeria as a pariah nation when the planning phase actually commenced contributed in no small measure to reducing the gains from the programme.

Specifically, international aid agencies were not willing to invest in any assistance programme in the country. A case in point was the Department for International Development (DFID then referred to as (ODA). The DFID was to provide a significant support in the form of 100million pounds Country Capacity Project (CCP), which designated some institutions in the country for upgrading and to deliver training programmes in various areas of forestry. This was to equally assist in the planning of the NFAP. However, due to political instability, the ODA that had completed the project document-awaiting signature did not show any interest in pursuing the CCP. Thus an important component for institutional strengthening that would have provided the expertise to successfully conclude the process was lost.

(2) Novelty of idea: The Nigeria Forestry Sector has been used to Top- Bottom approaches to developing programmes and projects, thus the novel idea that they would need to go through a series of data collection, collation and analysis phase was a hard sell at the initial phase.

(3) Ineffective political support: In spite of the attempts by the NFAP to muster adequate representation at the highest level of governance, as reflected in the National Advisory Council, there was a general attitude of indifference by the members of the Council. This is shown by the fact that it was only the Minister of the Federal Ministry of Agriculture and Natural Resources - Chairman of Council – that attended council meetings in person. The other Ministers on the council usually send in representatives, who most often were not able to muster the political clout required for advancing the NFAP course in their respective ministries.

(4) Late Placement of Requisite Personnel: The commencement of the programme was hinged on the placement of requisite personnel. The technical guidance was to be provided by a Chief Technical Advisor (CTA), who was to have been recruited in 1992. However, this was not possible until 1993. This invariably caused delay in the execution of some aspects of the programme.

(5) Late disbursement of funds: The arrangements for disbursement of funds for the day to day running of the NFAP was very cumbersome, with the result that funds were always received by the NCU very late. This was associated with the modality for fund disbursement. Requests were made to the World Bank office in Washington, who then instructed their office in Lagos to release funds. The time lag between requests to Washington and release by the Resident Mission in Lagos sometimes led to activities from one quarter being two or at times three quarters behind schedule.

(6). Non-Release of Counterpart funding: The Federal Government of Nigeria (FGN) was to take care of certain expenses in the portfolio of the NFAP apart from staff salaries. However, it was only consistent with the payment of staff salaries while it scarcely released funds for other major activities. This resulted in either these activities not being carried out or at times pinching the UNDP funds to carry them out.

(7) Inability to form Committees at the LGA Levels: The NFAP was supposed to form technical committees at the Local Government Level for effective dissemination of the principles of the programme to the grassroots. However, this was not achieved and led to the low level of grassroots participation in some states.

(8) Inability to convene Round Table Conference of Partners:
The inability to convene a Round Table Conference of Partners is a major factor contributing to the non-implementation of the NFAP in Nigeria. This conference if convened would have provided the country the opportunity to market its ideas to the international community and this would readily access funds for the implementation of some of the programmes identified in the NFAP report.

(9) Antagonism at the International Level: Initially, a lot of heat was generated as to whether the TFAP was not the usual top-down capitalist approach to money making disguised as an international problem solving tool before its revamping. This encouraged apathy from the donor community to the extent that they threatened withdrawing funding if the TFAP was not taken out of FAO control and greater environmental safeguards are implemented (Kreilick, 1991). This, of course, was bound to affect the Nigerian process to some extent. It would have been better if the quarrel had concentrated on implementation and revamping of concept as was later done and not to “throw away the baby with the bath water”.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The proceeding chapters of this report have taken a cursory look at the National Forest Programmes in Nigeria and this has provided the basis for drawing the following conclusions.

1. Lack of fund, shortage of equipment and insufficiently trained personnel thwart forestry administration at the three tiers of government. The forestry staff are therefore not effectively engaged while forestry operations are neglected.

2. Forestry development in Nigeria started on a good note, with sound management practices, which unfortunately disappeared with time. In recent times most forest resources have been mined or abandoned without routine maintenance and are being threatened by encroachment.

3. The country has made several concerted efforts at evolving appropriate National Forest Programmes, which would ensure the efficient management of her forest resources. However, most of these efforts have not yielded the desired result as the problems plaguing the sector still persist.

4. The country took the right decision by embracing the concept of TFAP and the approach adopted in the process has largely succeeded in addressing the inherent lapses in the sector.

5. The impact of NFAP on the condition of Forest resources is not as glaring as with the creation of a conducive environment for the actualisation of reforms suggested in the programme. The NFAP has engendered actions leading to the review of Forestry Policy and legislation. It has also facilitated some crucial changes in the area of policy, legislation and institution, which are being internalised through the continual interaction of policy makers that appreciate the importance of the NFAP.

6. The most important policy tools that emerged as a result of the NFAP process is the adoption of a bottom-up approach and dialoguing amongst the relevant stakeholders. This is noticeable with the recent programmes developed at both the Federal and State levels.
7. The NFAP has changed the perception of the policy makers and planners from their erroneous believe that forestry does not contribute much to the country's economy. At least most of the sectors now appreciate the roles of forestry and the possible influence on their programmes.

8 The country has developed the requisite capacity to regularly update the national Forest programmes. This status is better developed at the Federal level through the experience gained from the various Internationally funded programmes supervised by the Federal Department of Forestry.

9. The current level of goods and services from the Forest base can not satisfy the country's requirements and this trend might continue for some time except appropriate steps are taken. The country records deficit in Industrial wood, Fuelwood, NTFPs and Ecological services.

10. The Forestry Sector suffers from low investment from both the public and private sectors. The various governments have not been providing sufficient funds to execute forestry programmes while the private sector participation has been dampened by long gestation period of tree crops and land tenure system. The only appreciable financial lifeline has come more from the international community.

11. The country's Forest Revenue system is not fully developed to generate the required financial resources for forest management. A better portion of the proceeds from the Forests go to the Forest exploiters who pay peanuts for the forest goods. It is apparent therefore that the current level of Inputs and Outputs can not sustain a viable National Forest Programme.

12. The fact that the country has not started implementing the NFAP, notwithstanding, notable successes have bee recorded during the planning process.

Recommendations

The conclusions presented above have captured the situation of the Forest Resources and aroused curiosity on some areas of concern. The following recommendations are therefore made as possible interventions towards a sustainable forestry development in the country

1. More funds should be put into Forestry development in Nigeria. Other non-traditional sources of funds for Forestry development should be exploited. This could include the NGOs and Religious organisations.

1. The tenets of good and sustainable Forest Management should be imbibed. Forestry management should be taken as a serious business where prerequisite management procedures are religiously followed.

2. The country should sustain the gains of NFAP by ensuring that the salient principles are imbedded in the future Forestry Management and planning. The Federal Department of Forestry should develop a checklist of procedures to follow when formulating or implementing forestry programmes.

3 Concrete steps must be taken to address the deficit prevalent in the production of goods and services. This may include the use of Forestry Departments in aggressive plantation establishment and the encouragement of the people in social Forestry. The local communities should be properly educated on the importance of Forests and the need to respect basic Forest management principles. The immense potential of NTFPs must be fully harnessed, while alternative source of energy should be explored.

5. There is urgent need to overhaul the present Revenue System towards generating more funds for Forestry development. The state government should be encouraged to show more commitment to the Forestry Trust Fund. The various reports on the country's Revenue system should be harmonised and their recommendations implemented. Infact the possibility of giving legal backing to FTF should be explored.

6. The Forestry Departments should embark on intensive awareness campaign and public enlightenment to sustain the gains of the NFAP planning phases while still awaiting full implementation.

7. The country should take advantage of the current favourable political climate to draw international attention to the precarious forestry situation thereby arousing their financial support. The Federal Department of Forestry should open talk with International funding agencies on the various programme proposals stalled by previous inclement political disposition.

8. The private sector should be further encouraged in Forestry development through a package of new incentives and sustenance of the existing ones.

9. The political will must be secured to ensure that Forestry initiatives are respected. Forestry officials should interact intimately with the political office holders through their involvement in seminars, workshops and enlightenment programmes.

10. The Round Table Conference should be convened with dispatch. This would provide the opportunity to review the NFAP against the backdrop of contemporary development in the Forestry Sector.

11. The various Governments should give proper attention to the implementation of the recently approved Forestry development programme and recommendations of the Inter-Ministerial Committee on combating Desertification and Deforestation. The country should also look for other sources of fund to implement the NFAP.

12. There is an urgent need to put in place the necessary mechanism that would ensure an appropriate pricing of forest products. Similarly, the benefits accruable from the forests should be properly valued to reflect their importance to the country.

13. Sharp practices must be discouraged in revenue generation process so as to capture more funds dearly required for forestry development.

14. There is the need to revisit the land tenure system with particular reference to empowerment of the private sector to have easier assess to land for forestry programmes.

15. Community participation in forestry programmes should go beyond enlisting their support, rather the local communities should be made to benefit fully from the resources available in their neighbouring forests.

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APPENDIX 1: REACTIONS TO FAO COMMENTS ON THE DRAFT REPORT.

GENERAL COMMENTS.

1 **Financing Of the Forestry Sector In Nigeria.**

The Federal Government has budgetary provision for Forestry development but has no forest of its own. This provision is for financing forestry projects being executed by the Federal Department of Forestry in the states and supporting State Forestry projects being executed by the State Forestry Departments.

The states themselves have budgetary allocations for forestry development but this are grossly inadequate to carryout meaningful projects and programmes.

On the other hand, the revenue generated from the forests is nothing substantial compared with the requirements for sustainable forestry development.

The Local Government Areas on their part have no specific financial provision for forestry operations. The revenue generated by the LGAs is merely ploughed into their routine programmes.

2 **Wildlife Sector.**

The sectoral base for wildlife management has not been static in Nigeria. At a time, the Federal Department of Forestry had as part of its statutory responsibilities the management of wildlife. This role was however transferred to the Department of Environmental Conservation when the Ministry of Environment was created. It is imperative to state that, the National Parks is also involved in wildlife management.

At the state level, the responsibility for wildlife management still lies with the State Forestry Departments. The revenue generated from this subsector is reflected in the column on licenses/permits of Table 3.12.

DETAILED COMMENTS.

1. 1.7.7 **Tropical Forests Action Programme (TFAP).**

To a large extent, the full participation of the civil society was assured during the NFAP process. The NGOs were members of some working groups while the staff of NCU and SCUs interacted intimately with the local communities during the data collection exercise. Strong emphasis was equally placed on the involvement of the people outside the administration through their participation in meetings, seminars and workshops.

The report approved by NFDC in 1997 is actually the NFAP quoted as FORMECU (1996).

2. 2.2.3 **Legislative.**

State laws were developed from Regional laws. The Regions (North, East and West) were former administrative units in Nigeria. The protection of wildlife and biodiversity form part of the state laws. The National Parks fall within the jurisdiction of the central government and therefore not included in the state laws.

The absence of an appropriate forest law is prevalent only at the Federal level.

The proposed legislation has made adequate provision for private entrepreneurs as noted in item **m**.

Forest agreement is the same as concession but the former was used in the proposed legislation.

3. 2.2.4.7 **New Policy Tool.**

The Federal Department of Forest is bringing along the states to imbibe the new policy tool.

4. 2.4.2 **Programmes on account of NFP Process.**

The Federal Government has not released funds for the implementation of the blue print on NFPs 2000 - 2003.

5. 2.5.1 **Human Resources.**

I agree that the mentioned differences between pre and post NFAP are just the result of a trend of events independent of the NFAP formulation.

The threshold date between pre and post NFAP is 1997.

6. 2.6 **Adaptability of the NFP**.

Top-bottom approach was quoted as one of the negative factors that required modification in formulating NFPs.

7. Table 3.6. The constant figure for pulp and paper for 1990, 2000, and 2010 reflects the inherent deficiency in the method used for the projection. This confirms my worry in paragraph 3 of 3.1.1.

8. Chapter 5.
Points 4, 5 and 6 are still relevant. If those factors were not inhibiting, the NFAP could have been produced much earlier and implementation might commence before the political imbroglio.

APPENDIX 2: COUNTRY CASE STUDY ON IMPLEMENTATION OF NATIONAL FOREST PROGRAMMES.

TERMS OF REFERENCE FOR THE NATIONAL CONSULTANT.

During the last ten years or so most countries in Africa have made an effort to implement comprehensive programmes for development of the forestry sector under the Tropical Forestry Action Plan, or its variants. In some countries such efforts have been initiated more than 15 years ago. During 1999 FAO undertook a questionnaire survey and provided an overview of the status of implementation of the national forest programmes[1, 2]. In general the impact of NFP implementation has been extremely varied and in several cases the progress has been so slow or even stalled for a number of reasons. In its earlier form as TFAP and NFAP, the national programmes have been often initiated largely to mobilise donor support and this donor-dependency has arrested the development of sustainable programmes that rely on internal resource mobilisation. Efforts, which were primarily donor-dependent couldn't be sustained once the external support dwindled.

Revitalising NFPs requires a thorough assessment of the experience and to identify what could be realistically accomplished. With this in view, the EC-FAO programme "Sustainable Forest Management in Africa ACP countries" is undertaking case studies on the NFP process in 6 countries in Africa to provide a clear indication of the factors that have contributed to success or otherwise of NFP formulation and implementation. Apart from providing an indication of how the process has evolved and to what extent the NFP process has taken into account the basic principles and guidelines, the study would specifically focus on the economic viability of the National Forest Programmes. In some of the forest rich countries, the sector has the potential to sustain the National Forest Programme with the resources it generates, but often cross-sectoral transfers limits the scope for re-investment, affecting sustainability. On the other hand in several countries the ecological conditions are such that the sector can generate only limited resource and to generate goods and services, the resources will have to be transferred from other sectors. Strategies and plans for sustainable forest management have to take into account the input-output ratios and identify the appropriate level of input-output ratios that can be sustained in the long run.

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[1] FAO (1999) status and progress in the implementation of National Forest Programmes: Outcome of a survey by FAO, Food and Agriculture Organisation of the United Nations, Rome.

[2] National Forest Programmes may be viewed from two different perspectives. The broad sense, the term national forest program encompasses the full range of policies, institutions, plans and programmes to manage, utilize protect and enhance forest resources within a given country. In the restricted sense the term "National Forest Programme" refers to a specific national process for planning, coordination, institutional reform and capacity building in the forest sector in accordance with internationally recognized principles and guidelines. **For the purpose of this study, the term is**

used in its broad sense as adopted by the Intergovernmental Panel on Forests and encompasses a wide range of approaches to sustainable forest management.

This review aimed to highlight the above issues will be undertaken through National Consultants from the selected countries in Africa. The terms of reference of the National Consultant are defined below:

Working under the overall supervision of the Chief Forestry Planning and Statistics Branch, Forestry Department, FAO, Rome and under the guidance of the Senior Forestry Officer, FAO Regional Office, Accra and the concerned Technical Officers responsible for the study, the National Consultant will:

- Review all the available documents and reports (published and unpublished) relating to formulation and implementation of National Forest Programmes and outline the progress/accomplishments in relation to what was envisaged while initiating the process;

- Discuss with key stakeholders, especially policy makers, planners, representatives of Sectors closely linked to forestry as also those from civil society, non-governmental organizations, local communities, private sector, etc and assess their perception with regard to forestry as also the efficacy or otherwise with regard to NFP formulation and implementation;

- Define the indicators of performance and assess the changes as a consequence of adoption of National Forest Programmes, specifically indicating important accomplishments as well as areas where performance has not been adequate and develop a scorecard of accomplishment s/shortfalls;

- Identify the factors that have contributed to the success or failure of NFPs and critically assess their relevance;

- Undertake an economic analysis of National Forest Programmes, specifically focusing on investment requirements for sustainable forest management, current and potential outputs from forest, cross-sectoral resource transfers and the economic viability of implementing sustainable forest management;

- Based on the conclusions from the above, indicate the approaches To revitalize/strengthen the NFP process and specifically identify how a self-sustainable programme could be developed and implemented.

Appendix 3: List of people contacted during the study

S/No	Name	Position/Contact
	Mr. Oyebo, Fola	Acting Director, Federal Department of Forestry, P. M. B. 135, Abuja
	Dr. Obyo Nelson	Director, Industrial Technology and Energy Research , Federal Ministry of Science & Technology, Asokoro District, Abuja
	Dr. A. Bala	Planning Officer, energy Planning and Analysis, Energy Commission of Nigeria, Abuja.
	Mr. A. D. Andrew	Planning Officer, Planning Research and Statistics Department, Federal Ministry of environment, Abuja. Former Staff of TFAP National Coordinating Unit
	Mr. Adeleke Alade	Program Manager, Nigerian Conservation Foundation, Lekki Conservation Centre, Lagos.
	Mr. Onwuka, J. E.	Chief Forest Officer, Field Officer, Former Regional Coordinator, Federal Department of Forestry, Enugu.
	Mr. Munoye, W. O.	Field Officer, Federal Department of Forestry, Jos, Plateau State, Former TFAP Staff.
	Mr. Etuk Charles	Chief Planning Officer, Planning Research and Statistics Department, Federal Ministry of agriculture, Abuja.
	Mr. Osu, P. T.	Planning Officer, Department of Petroleum Resources, Ministry of Petroleum, Abuja.
	Mr. Abidogun	Chief Legal Officer, federal Ministry of Works and Housing, Lagos.
	Prof. Oyejide, T. A.	Executive Director, Development Policy Centre, DPC Road, P. O. Box 30733, Secretariat, Ibadan, Oyo State.
	Mr. Ganiyu Olalekan	National Secretary, Timber Farmers' Association of Nigeria. Plot 31, Abidogun Layout, Challenge Area, Ibadan, Oyo State.
	Prof. Owonubi, J. J.	Director, Forestry Research Institute of Nigeria, Jericho Quarters, Ibadan, Oyo State.
	Mr. Rotimi Kassim	Director of Forestry, Ministry of agriculture and Natural Resources, Abeokuta, Ogun State.
	Mr. Nfom, S.	Deputy director of Forestry, Forestry development Department 69 Target Road, Calabar, Cross River State.
	Mr. A. Owonipa	Acting director of Forestry, Ministry of Agriculture and Natural Resources, Lokoja, Kogi State.
	Prof. Ihimodu, I. I.	Director General Agricultural and Rural Management Training Institute. Km. 18, Ilorin – Lokoja Highway, Ilorin, Kwara State.
	Dr. Val Attah	President, Forestry Association of Nigeria, UNDP Office, Uyo, Akwa Ibom State
	Mr. Aluko, S.	Field Officer, Federal Department of Forestry, Sokoto, Sokoto State.

Appendix 4.: Composition of the National TFAP Advisory Council.

(1)	Honourable Minister of Agriculture and Natural Resources.	Chairman.
(2)	Director-General (FEPA)	Member.
(3)	Executive Director, Nigerian Conservation Foundation (NCF)	"
(4)	Director-General, National Commission for Women	"
(5)	Executive Secretary, National Agricultural Land Development Authority	
(6)	Director (Multi-Lateral), Federal Ministry of Finance.	
(7)	Director, National Planning Commission (Agric & Industries)	
(8)	Director, Federal Department of Forestry	
(9)	Head, FORMECU.	
(10)	National Coordinator, TFAP	Secretary.

Appendix 5: Composition of the National TFAP Technical Committee.

(1) Director, Federal Department of Forestry - Chairman.
(2) Agroforestry Specialist (Representing I.I.T.A Member
(3) Representative of the Centre for Arid Zone
Studies, University of Maiduguri.
(4) Biodiversity and Conservation Specialist
(Representing the Department of Forest Resources Management
University of Ibadan.
Representative of the Forestry Research Institute of Nigeria
(6) Representative of National Parks Board
Representative of Federal Dept. of Agriculture
Representative of the Federal Dept of Livestock
Representative of the Nigerian Tobacco Company (NTC)
Representative of the National Commission for Women
Representative of Nigerian Environmental Action/Study Team (NGO)
Representative of Dept of Agric Land Resources.
Director of Forestry, Jigawa State
Director of Forestry, Kaduna State
Director of Forestry, Oyo State.
Director of Forestry, Anambra State
Director of Forestry, Delta State.
National TFAP Co-ordinator - Secretary.

Appendix 6: Composition of Technical Committee Working Groups.

Working Group 1 (Forestry and Related Sector Polices)

- Federal Department of Forestry - Chairman
  Federal Department of Agriculture
  Federal Environmental Protection Agency (FEPA)
  National Institute for Social and Economic Research

Working Group 2 (Public and Government Environmental Awareness)

Nigerian Environmental Action/Study Team (NEST) Chairman
Nigerian Conservation Foundation (NCF)
Forestry Research Institute of Nigeria (FRIN)
Federal Department of Agriculture
University of Ibadan
National Agricultural Extension, Research and Liaison Services (NAERLS)
Federal Environmental Protection Agency (FEPA)
Oyo State Department of Forestry
Jigawa State Department of Forestry

Working Group 3: (Development of a range of economic/Financial Indicators that will allow for a more accurate measurement of the impact of economic policies on the environment)

National Planning Commission Chairman
Federal Department of Agriculture
National Institute for Social and Economic Research, NISER)
Nigerian Environmental Action/Study Team (NEST)
Nigerian Conservation Foundation (NCF)
Federal Environmental protection Agency (FEPA)

Working Group 4 (Land tenure and Ownership Rights to Land and Trees.

Federal department of Agricultural Land Resources. Chairman
Federal Department of Agriculture
Kaduna State Department of Forestry
International Institute for Tropical Agriculture
National Agricultural Land development Authority (NALDA)
Obafemi Awolowo University, Ile-Ife

Working Group 5 (Land Use planning)

Federal department of Agricultural Land Resources. Chairman
National Agricultural Land development Authority (NALDA)
International Institute for Tropical Agriculture

Working Group 6 (Environmental degradation Processes involving Deforestation, Forest and Land Degradation including Erosion and Desertification)

Forestry Research Institute of Nigeria (FRIN) Chairman
International Institute for Tropical Agriculture

Federal Environmental protection Agency (FEPA)
Federal Department of Agricultural Land Resources
Nigerian Environmental Action/Study Team
Jigawa State Forestry Service
Kaduna State Forestry Service
Anambra State Forestry Service.

Working Group 7 (Protection of Biodiversity and Wildlife management).

National park Services — Chairman
Forestry Research Institute of Nigeria (FRIN)
Nigerian Conservation Foundation (NCF)
Federal Environmental protection Agency (FEPA)
Cross River State Forestry Services
University of Ibadan

Working Group 8 (Fuelwood).

Federal Environmental protection Agency (FEPA) — Chairman
Energy Commission of Nigeria (ECN)
Oyo state Forestry Services
Kaduna State Forestry Services
Delta State Forestry Services

Working Group 9 (Incentives to Private Forestry)

Federal Department of Forestry — Chairman
Nigerian Tobacco Company
Nigerian Conservation Foundation
Federal Ministry of Finance and Economic Planning.

Appendix 7: Externally Funded Projects in Nigeria

Project	Location/ State	Funding Agency	Targets	Status
Afforestation Programme	Kano	IBRD	Production of seedlings for Farm Forestry and Shelterbelts;	Completed
	Jigawa	IBRD	Establish nursery to produce 2,324million seedlings for farm forestry and shelterbelts;	Completed
	Bauchi	IBRD	Establish new nursery and rehabilitate others to produce 127 million seedlings for farm forestry;	Completed
	Plateau	IBRD	Rehabilitation of Nursery and production of seedlings for farm forestry and shelterbelt establishment	Completed
	Sokoto	IBRD	Establish new nursery and rehabilitate old ones to produce 7.37 million seedlings for farm forestry and shelterbelt;	Completed
	Borno	IBRD	Farm Forestry project, 3.4 million seedlings to be produced. Old nurseries to be upgraded;	Completed
	Katsina	IBRD	Establish new nursery and rehabilitate old ones to produce seedlings for farm forestry and shelterbelt establishment;	Completed
	Yobe		Rehabilitation of nursery and production of seedlings for farm forestry and shelterbelt establishment;	Completed
	Kebbi			Completed
Forest Management Program	Kogi	IBRD	Management of 2,035 hectares of plantation already established. Establishment of 700 ha plantation;	Completed
	Kaduna	IBRD	Establishment of 2,450 ha of Eucalyptus and pine plantation and development of Management regimes for existing plantations at Afaka, Ribako and Nimbia;	Completed
	Ogun	IBRD	Maintain fire prevention and fire control system in about 17,000 ha of *Gmelina* and 3,760 ha of Teak plantations maintain roads and thin the plantation;	Completed
	Ondo	IBRD	Maintain fire prevention and fire control system in *Gmelina* and Teak plantations, maintain roads and thin the plantation.	Completed.
Forestry Development Project	Ogun	ADB	Maintenance of existing 11,363 ha of *Gmelina* plantations and 430 ha of Teak plantation	On-Going
	Ondo	ADB	Establishment of 5,400 ha of *Gmelina* plantation and 600 ha of trial plantations of indigenous and pine species	On-going
Arid Zone Afforestation Program	Sokoto, Kebbi, Kano, Kaduna, Katsina, Jigawa, Bauchi, Yobe, Borno and Adamawa	Federal Government of Nigeria	Production of 2 million seedlings annually for the establishment of woodlots; Establishment of 200km shelterbelts; Procurement and distribution of fencing	Completed

			materials for participating farmers; Monitoring of project performance in all participating states.	
Katsina State Afforestation project	Katsina state	EEC/FGN	Annual establishment of 5km of shelterbelts; Establishment of 400 ha windbreaks; Production and distribution of 1 million seedlings to participating farmers; Document and distribution of fencing materials; Establishment of 1.65 ha woodlot.	
Environmental management Program	All states	IBRD/FGN	To strengthen Nigerian Environmental organizations and assist them in implementing their programmes; To establish a programme of data collection that enable the government to measure levels of environmental degradation and be aware of environmental trends over time; To complete a series of sector investigation and feasibility studies leading to soundly conceived programmes;	
National Forest Resources Study	Abia, Anambra, Akwa-Ibom, Cross-River, Delta, Edo, Enugu, Imo, Lagos, Ogun, Ondo, Osun, Oyo, Rivers, Kaduna, Kwara, Kogi, and Taraba. The last four encompass the plantation study aspect of the study	ADB/FGN	Development of data acquisition capability through aerial photographs and maps as well as the collection of forest resources data and preparation of maps and forest operation manuals	
FRIN/JICA Trial Mechanized Afforestation Project	Afaka, Kaduna State	Japanese International Cooperation Agency a(JICA) and FGN	Trial afforestation project in semi-arid areas for the purpose of establishing afforestation techniques. The project covered collection of useful data for selection of species; Establishment of afforestation technology and estimation of forest management cost. The project established 742.94 ha over the five year project life	
Cross River State Forestry Project	Cross River state	ODA and Cross River State Government	Prepare a state forestry strategic management plan to ensure sustainable management and utilization of the states' forest resources; Strengthen the manpower capabilities of the forestry sector etc.	

Source: FORMECU (1996)
FDF (2000)

Appendix 8: Budgetary Allocation to SFDs (1992)

State	Proposed Budget (in ₦'000)		Released Budget (in ₦'000)	
	Salaries/Wages	Others	Salaries/Wages	Others
Abia	102.92	8415	100.56	1900
Akwa-Ibom	3405.62	2268	3405.62	1558.80
Anambra	3394.90	1284.79	2394.90	271.29
Bauchi	1827	250	1827	250
Benue	4682.90	4100	2961	100.00
Cross River	7132.26	15500	7132.26	6600
Edo	703504	175876	703504	83602
Enugu	2001	293.5	1907.51	180.04
Imo	2668.12	1100	2605.12	NIL
Katsina	1919	2000	719	2838
Kebbi	1797	5000	1797	977
Kwara	1800	317.69	207.353	
Lagos	1320	900	880	650
Niger	520		250	
Ogun	73	4098	33	
Ondo	3150		2433.53	315
Osun	132944	13993	121746	64076
Oyo			836.1	
Kogi	2523	344	1065	14516
Sokoto	2933	40264		7223
Plateau	1446	1100	1446	1100
Rivers	1341	500	1341	380

Source: FORMECU, 1996.

Appendix 9: Departments/Agencies/Units pooled to form the Federal Ministry of Environment.

- Federal Environmental Protection Agency (FEPA) from the Presidency;
- Federal Department of Forestry, from the Federal Ministry of Agriculture;
- National Parks Service from the Federal Ministry of Agriculture;
- Forestry Research Institute of Nigeria (FRIN), from the Federal Ministry of Agriculture;
- Soil Erosion and Flood Control Department from the Federal Ministry of Water Resources;
- Environmental Assessment Division, Coastal Erosion Unit and Sanitation Unit from the Federal Ministry of Works and Housing;
- Oil and Gas Pollution Control Unit of the Department of Petroleum Resources, Federal Ministry of Petroleum Resources; and

- Environmental Health and Sanitation Unit from the Federal Ministry of Health.

APPENDIX: 10 : SOURCES OF INVESTMENT IN FORESTRY SINCE THE COMMENCEMENT OF THE NFP.

S/N	Projects	Sources of Fund	Amount (US$)	Period	Location
1	TFAP	UNDP	695,500.00	1991-1997	National
2	Neem Disease Eradication	FAO	155,000.00	1994	Northern states
3	Environmental Management Project (EMP)	World Bank	3.5 million	1992-1997	National
4	Forest Resources Study	ADB	4 million	1995-1998	National
5	Forestry Development	ADB	140 million	1990 to date	Ogun and Ondo States
6	National Parks Management	GEF	8.3 million	2001 To date	National Parks
7	Review of Forest Policy	Ford Foundation	100,000.00	2000 To date	National

APPENDIX: 11 : SPREAD OF STATES ALONG REGIONS.

S/N	REGION	STATES
1	South West	Oyo, Ogun, Ondo, Ekiti, Osun, Delta, Edo, Kwara, Kogi and Lagos.
2	South East	Enugu, Ebonyi, Imo, Cross River, Akwa Ibom, Rivers, Anambra, Abia, Benue and Balyesa.
3	North West	Kano, Kaduna, Katsina, FCT, Kebbi, Sokoto and Niger.
4	North East	Plateau, Adamawa, Taraba, Jigawa, Borno, Yobe, Bauchi and Nassarawa.