

MAINSTREAMING SOCIO-ECONOMIC REALITIES INTO NATIONAL FOREST POLICY

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Abstract

Declining forest areas and increasing demand for forest goods and services have set off the need for sustainable forest management. Nigeria is one of the highest net forest losers in Africa and indeed in the world. National forest policies have focused more on increasing forest area to meet increasing demand; however, increasing poverty levels are counter-plots to the realization of policy objectives. There is an urgent need therefore to redirect the initial emphasis on increasing tree stock to an understanding of man-forest relationships. This is with a view towards changing ongoing exploitation patterns especially in developing nations which have high percentage of forest-dependent people. Charcoal production is a significant economic activity implicated in forest loss. Indeed, it has become a preferred alternative, a situation exacerbated by its growing export demand. To address this, a pro-active measure is required to achieve forest sustainability which must include institutionalizing efficient production and consumption technologies of woodfuel. The study therefore explores the development of Nigeria's forest policies and proposes sectoral improvements that will adequately recognize current socio-economic and environmental realities.

Keywords: Forest, policy, national, demand

Introduction

Global diminishing forest areas and increasing demand for forest goods and services have set off interest in the management of the world's forests. Trends in net forest loss and gain vary widely over different regions in the world. Europe currently has the highest forest area while the Caribbean has the lowest (FAO, 2011)

Nigeria has a total area of 923,769km² (made up of 909,890km² of land area and 13,879km² of water area), situated between longitudes 3° and 4° East and latitudes 4° and 14° North. The climate is equatorial and semi-equatorial in nature, characterized by high humidity and substantial rainfall with two seasons i.e. wet and dry seasons. It is drained by major rivers including River Niger, Benue, Ogun, Sokoto, Yobe, Imo, amongst others. (NBS, 2011)

The country's forest and woody vegetation resources include the high forests, woodland, bushlands, plantations, and trees on farms. Forest reserves occupy about 96,043km², which is about 10% of Nigeria's land area. The forest estate includes about 445 gazetted forest reserves distributed over the five main ecological zones: Freshwater/Mangrove, the Lowland Rainforest,

Derived Savanna, Guinea Savanna, and Sudan/Sahel zones. (FME, 2006)

Nigeria has a population of over 140 million people consisting of about 72 million and 68 million males and females respectively. The country has more than 200 ethnic groups with three major tribes; the Igbo, Hausa and Yoruba. Agriculture is the dominant economic activity in terms of employment and linkages with the rest of the economy. Unfortunately this is largely rain fed and subsistence with average farmed land below 2 hectares. Estimates show that 75% of Nigeria's land is arable, with about 40% cultivated. (NPC, 2004) Figure 1 shows the area extent and states in Nigeria.

The essence of policy is to stem the negativities associated with resource exploitation while promoting its positivity. The global acceptance of the concept of sustainability implies that policies are now aimed at creating a set of guidelines that promote social and economic wellbeing of individuals and national solvency while maintaining the value of the environment. The paper reviews the development of Nigeria's response to concern on forest dynamics with a view to ensuring the sustainability of these resources.



Figure 1: Map of Nigeria

Global forest trends

The importance of forests in sustainable development is increasingly being recognized globally. Some of the forest goods and services that have been identified include: i) Food in form of nuts, fruits, and game meat (ii) Medicinal plants (iii) Carbon stock (iv) Erosion control and watershed (v) Construction and furniture materials (vi) Woodfuel (vii) Tourism and (viii) Employment and income source.

These goods and services add social, economic, and environmental values to about 1.2 billion

forest-dependent people, within and beyond which are about 54 million employed formally and informally in the forest sector; 1.3 billion who use forest products for construction and about 2.4 billion who cook with woodfuel. (FAO, 2014)

Beyond the number of forest-dependent people however, is the need to quantify the complex relationships between people and forests in order to facilitate adequate policy making. Table 1 shows the extent of forest cover available globally and the rate of change over two decades (1990 – 2010).

Table 1: Global forest cover and rate of change from 1990 to 2010

Region	Extent of Forest 2010		Annual Change Rate			
	Forest Area (1 000 ha)	% of Land Area (%)	1990 - 2000 (1 000 ha)	(%)	2000 - 2010 (1 000 ha)	(%)
Africa	674 419	23	-4 067	-0.6	-3 414	-0.5
Asia	592 512	19	-595	-0.1	2 235	0.4
Europe	1 005 001	45	877	0.1	676	0.1
Carribbean	6 993	30	53	0.9	50	0.7
North and Central America	705 393	33	-289	0	-10	0
Oceania	191 384	23	-36	0	-700	-0.4
South America	864 351	49	-4 213	-0.5	-3 997	-0.5
World	4 033 060	31	-8 323	-0.2	-5 211	-0.1

Source: FAO (2011)

A varied pattern is observed as has been earlier identified because of the specificity of people and forest relationships in different regions, countries, states, and local communities. Global rate of forest change within 2000 – 2010 dropped relative to the preceding decade estimated at -5.2million and -8.3 million hectares per year respectively. Net forest gain took place in the temperate and boreal zones, the highest being recorded in Asia within 2000-2010 and Europe in the preceding decade. South America and Africa maintained highest net loss within the two decades. These are areas dominated typically by tropical forests, which until recently were exploited quite unsustainably with little concern from authorities.

Figure 2 shows the continual decline of forest area in Nigeria. Annual rate of forest area change increased from -2.7% within 1990-2000 to -3.7%

in the subsequent decade (FAO, 2011). Some of the factors responsible for this decline in forest areas identified in Nigeria National Forest Policy (FME, 2006) include:

- i) Exploitation beyond Annual Allowable Cut (AAC)
- ii) Clearing of land for farming
- iii) Growth in overall population
- iv) Poorly organized industrial exploitation of timber
- v) Weak institutional capacity
- vi) Expansion of cities into rural areas
- vii) Uncontrolled forest fires
- viii) Fuelwood harvesting
- ix) Overgrazing and infrastructural development

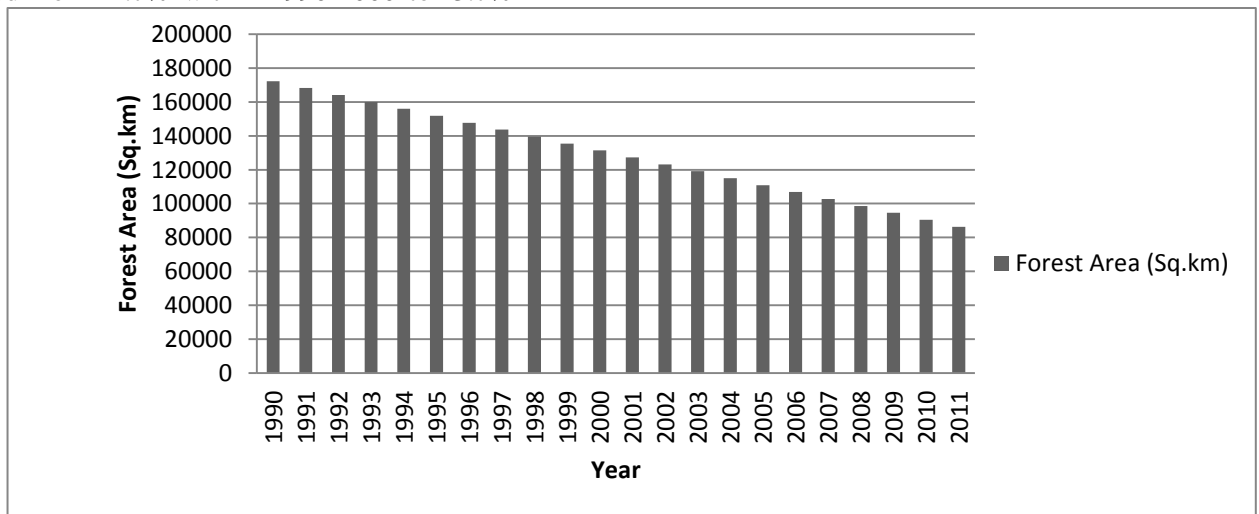


Figure 2: Trend of Estimated Forest cover in Nigeria (1990 – 2010)

Source: FAO(2011)

Poverty and forest decline in Nigeria

Rural areas in sub-sahara Africa are mostly farming settlements. The level of cultivation is largely subsistence and rain fed with households cultivating below 2 hectares (Orefi, 2012). Poverty occasioned by decline in crop productivity and climate variability is degrading the limits of these rural dwellers (Uisso and Balama, 2011). Adaptation strategies employed over time include more intensive shifting cultivation leading to the use of forest reserves and switch to alternative

income sources like charcoal production (Ajadi et al, 2012). Over 70% of Nigeria’s household energy is woodfuel, signaling the continuous pressure on forests for supply of energy. Onuche (2010) examined the role of poverty in woodfuel consumption in Nigeria and found that poorer regions tend to use more woodfuel to meet their domestic requirements. Figure 3 shows 2007 poverty rate and percentage of wood as fuel source by geopolitical regions.

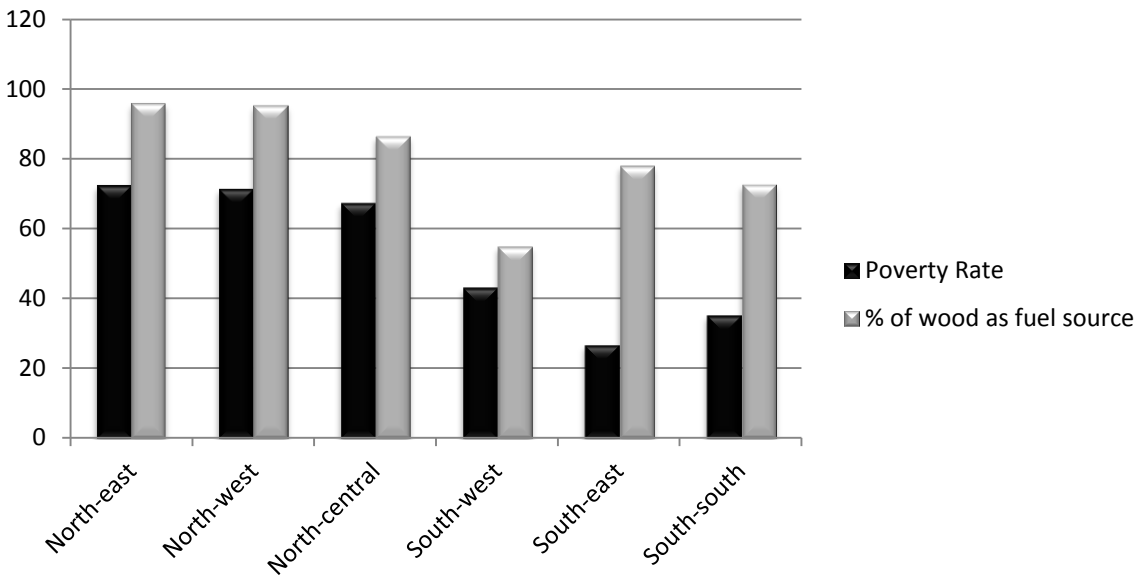


Figure 3: Poverty rate and % of wood as fuel source by geopolitical region in Nigeria (2007). (Source: Adapted from Onuche, 2010)

Unfortunately, regions with higher woodfuel consumption rates are those within the Sudan/Sahel ecological regions. These are regions that are regarded to have deficits in woodfuel

balance as reflected in Table 2. The country was divided into two regions, north and south; south including the south-west, south-south and south-east.

Table 2: Nigeria’s Woodfuel Demand and Supply Balance (1990)

Region	Total Woodfuel Consumption (million air-dried tonne)	Sustainable yield of Woodfuel (million adt)	Supply/Demand balance (million adt)
North	22.50	6.7	-15.8
South	48.9	58.0	9.1
Total	71.40	64.7	-6.7

(Source: ESMAP, 1993)

The worrisome situation persists so much so that Onuche (2010) asserted that movement of commercially processed charcoal from the south, northwards in Nigeria due to the absence of forests

and higher poverty rates would exacerbate the situation. Figure 4 shows trends in poverty in Nigeria.

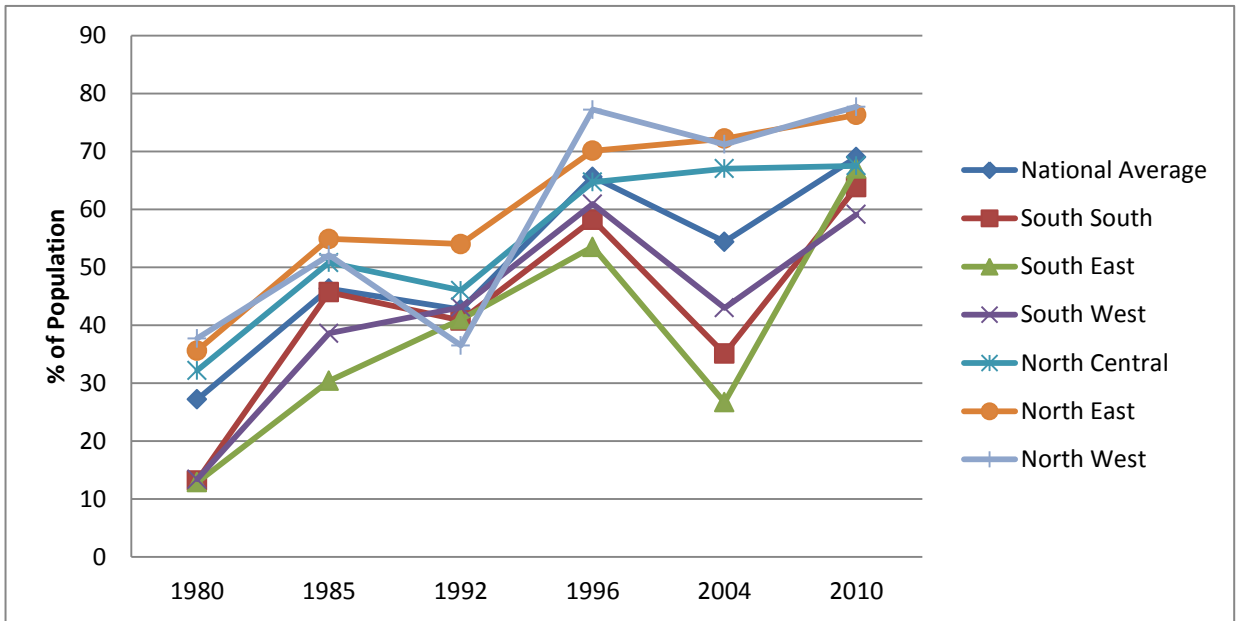


Figure 4: Nigeria's poverty trend from 1980 to 2010
 Source: NBS, 2012

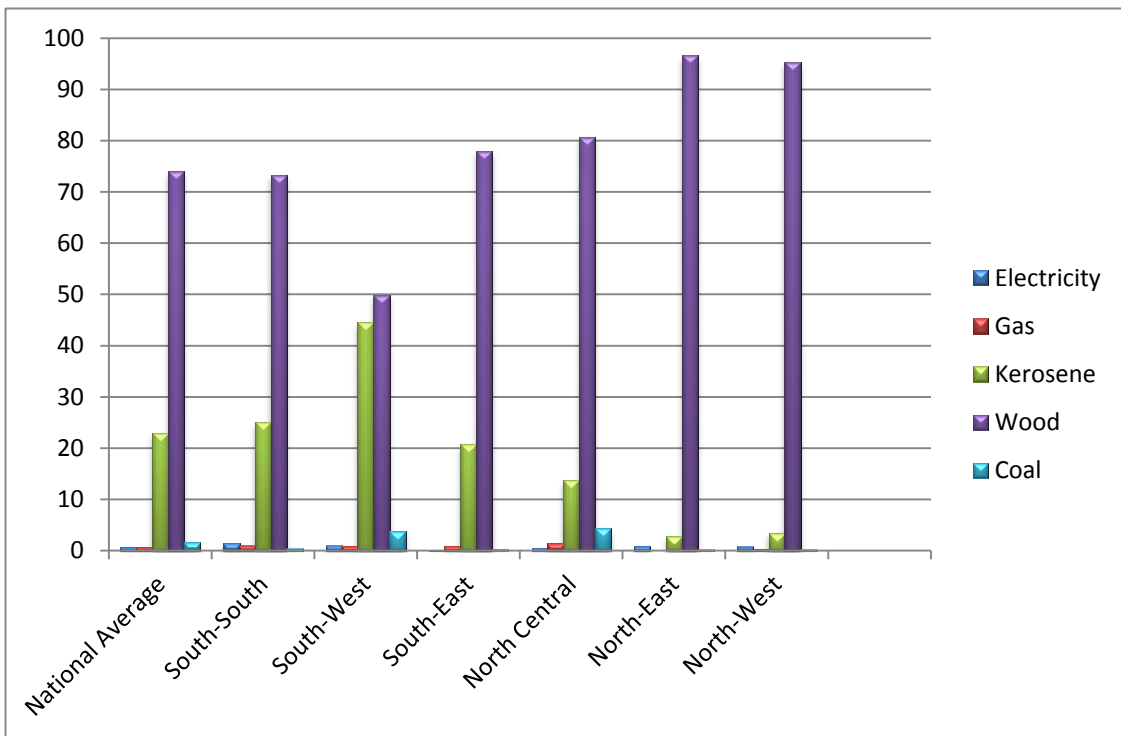


Figure 5: Distribution of household fuel choice in Nigeria (2007) Source: NBS, 2011

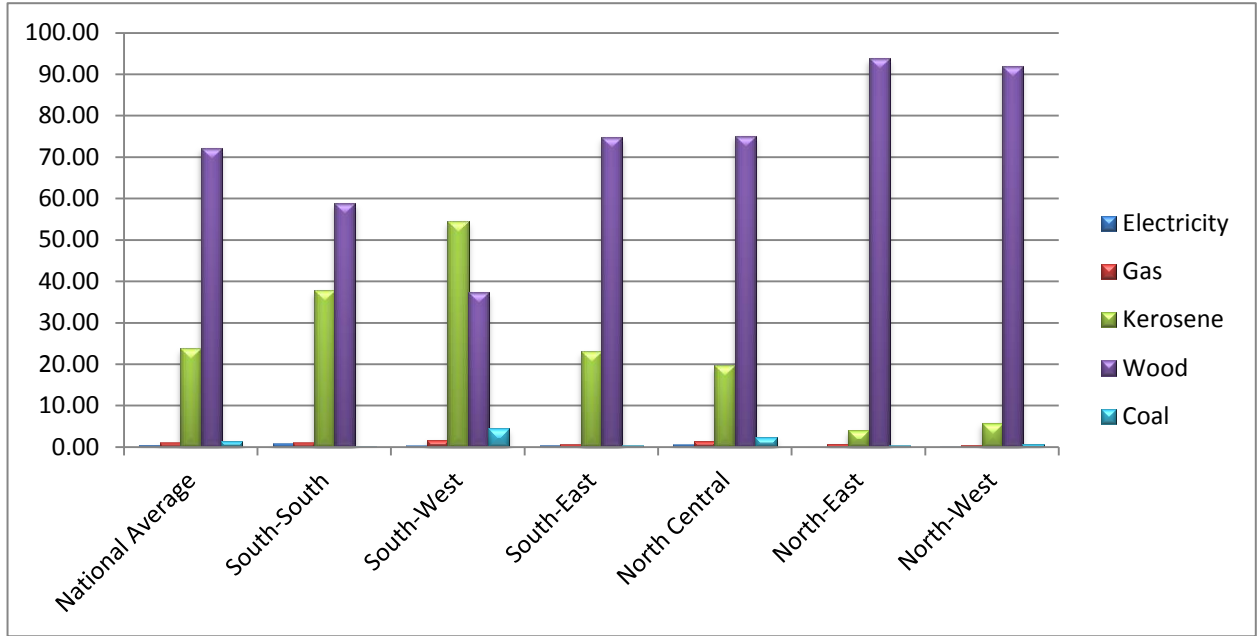


Figure 6: Distribution of household fuel choice in Nigeria (2010)

Source: NBS, 2011

Figures 5 and 6 reflect an increase in the percentage of kerosene use nationally. This however was marginal, an increase from 22.9 to 23.8 percent. This was accompanied by a decrease in fuelwood percentages from 74.1 to 72.2 percent. Notable in the pattern, was the takeover of kerosene as the most used fuel in the southwest during this period.

Nigeria's poverty reduction strategy paper (PRSP) which is the National Economic Development Strategy (NEEDS) identified the factors that have restrained poverty reduction to include; problems in the productive sector, widening income inequality, weak governance, social conflict, intersectoral and environmental factors.

Development of Nigeria's national forest policy

Pre-colonial forest administration was undertaken through indigenous traditional institutions. In each Yoruba town for example, the *Oba* (King) directed affairs of the towns with the aid of his chiefs. Rules and regulations for forest management were designed by these rulers. Forests, therefore, served as places of worship and sources of raw materials for building and construction. (Shittu, 2006)

In 1887, Mr Moloney, the Governor of Lagos Colony published the Sketch of Forestry of West Africa. 1908 saw the creation of the first Forestry Department. (FME, 2006) During the colonial era, two types of forest reserves were identified in Southwestern Nigeria; Government Reserves and Local Authority Forest reserves. The former was controlled by the colonial government and the latter by the native administration. This period saw the dearth of the traditions of the people, respect for accountability, responsiveness and transparency which served as checks and balances in general forest administration (Shittu, 2006).

The Forest Administration Plan (1945-1955) was halfway through its life span when a Federal Constitution was instituted in 1952, which led to an abortion of the plan's objectives as forestry became a regional subject. This in turn created series of setbacks for forestry administration in terms of research and personnel management (FME, 2006). The post colonial era also saw forest reserve administration handled by state governments and forest areas in non-urban areas under the authority of Local governments according to the 1978 Land use Act.

There have however been more recent attempts at producing forest policy in Nigeria, notably the 1988 and 2006 National forest policies which will be reviewed hereafter.

The 1988 National Forest Policy

The policy was included in the Agricultural Policy of Nigeria, which recognized forestry as the management of forests as renewable natural resources. The policy was said to be demand-led as reflected by the aim, which was “the development of the forestry sector to meet the increasing national demand for forest products”. This was to be driven by increasing forest conservation areas to 20% from 10% amongst others. Its objectives included:

- i. Consolidation and expansion of the forest estate and its management for sustained yield.
- ii. Forest conservation and protection of the environment
- iii. Forest regeneration at a greater rate than exploitation
- iv. Reduction of waste in utilizing both the forest and forest products
- v. Protection of the forest from fires, poachers, trespassers and unauthorized grazers
- vi. Encouragement of private forestry
- vii. Creation of man-made forests for specific end uses
- viii. Increase of employment opportunities
- ix. Development of national parks and game reserves
- x. Development of secondary forest products which are significant in the local economies, and encouragement of agro-forestry
- xi. Cooperation with other nations in forestry development, and
- xii. Development of more efficient use of wood energy and encouragement of alternative energy sources to wood fuel.

Since the policy was not a stand-alone document on forestry, it was restricted to mostly general

statements. Hence, it remained a policy with little effort at implementation seeing it lacked adequate specific direction for actions required. The 2006 forest policy provided a more detailed expression of forest administration intent being a document dedicated solely to this cause.

The 2006 National Forest Policy

The overall aim of the policy is to achieve sustainable forest management which will involve increase in environmental, social and economic benefits to all, especially the poor and vulnerable groups. Specifically, its general objectives include the need to:

- i. Increase, maintain and enhance the national forest estate through sound forest management practices.
- ii. Address the underlying causes of deforestation, desertification including lack of policy support, market distortions, weak regulations and rural poverty.
- iii. Promote and regulate private sector involvement in forestry development, and to create a more positive investment climate in the sector.
- iv. Capitalize on the economic, social and environmental opportunities in forestry without undermining the resource base.
- v. Encourage forest dependent people, farmers and local communities to improve their livelihood through new approaches to forestry.
- vi. Ensure the survival of forest biodiversity and to balance this with the pressing development needs of the country.
- vii. Rehabilitate and conserve key watershed forests.
- viii. Promote and maintain the greening of the urban environment, and meet the increasing demand for forest products by urban centers.
- ix. Ensure that improved tenure to land and tree acts as an incentive women in particular to invest in forestry.

- x. Help private owners and communities to reserve land for forestry.
- xi. Build capacity and systems for state and local government to engage actively in forest resources management and development.
- xii. Apply an effective regulatory system to safeguard public interests under private sector forest management agreements to ensure adequate legal provisions for tenure in order to encourage long-term investment.
- xiii. Develop partnerships or management agreement with local communities that improve forest management and alleviate poverty.
- xiv. Strengthen and make best use of the capacity and reach of NGOs and CBOs in facilitating forest development.
- xv. Develop and promote responsive, affordable, well-informed and decentralized forestry advisory services to farmers, communities and the forest industry.
- xvi. Develop and support demand driven, well coordinated forestry research and training institutions and programmes.
- xvii. Develop a forest sector programme that translates forest policy into action in a way that complements programmes in related sectors.

The policy provided strategies for each of the thirty (30) priority areas identified for action. The paper selects four (4) priority areas that are of relevance.

Selected priority areas in the 2006 National Forest Policy

- a. Community participation in and around forest reserves
This priority area is meant to balance government restricted approach and regulate open access to forest resources. It is expected to encourage collaborative partnership with rural communities for the

sustainable management of forest resources in forest reserves and areas referred to as free areas to ensure the supply of goods and services from the forest for the present and future generations.

b. Forest Industries

The policy recognized the active and highly competitive domestic market in wood products particularly in the construction and manufacturing sectors, hence its focus was largely on use of forest products as timber. It also identified major issues militating against optimal resource use to meet sustainability targets. These include:

- Waste due to inefficient machinery, which have conversion rates during processing as low as 40%
- Undervaluation of timber; as royalty rates charged on timber do not reflect its value in terms of the forest goods and services forgone.
- Poor regulations leading to increase in illegal harvesting undermining legal markets by distorting market prices
- Switch of profits made by private investors to other sectors because of low confidence investors have in the seeming risky investment climate.
- Low development of wood based products through secondary and tertiary processing measures.

The objectives to combat these challenges thus include:

- i. To have a forest industry that embraces and practices forest resource exploitation in a way that promotes sustainable forest management and utilization.
- ii. To develop strategies for waste reduction and utilization at all stages of industrial activities.
- iii. To ensure that forest industry operations are carried out in an effective, efficient and

environmentally friendly manner.

- iv. To enhance the value of products from the forest.
- v. To promote activities that will generate and sustain increased job opportunities.
- vi. To involve forest industries in forest plantation development.

c. Poverty Alleviation

The policy recognized the role of forests in contributing to livelihood for the poor and forest-dependent people. Its importance in poverty reduction involves food production, education and primary healthcare. Hence goods such as fuelwood, medicines, wood for building, bushmeat, fodder, mushrooms, honey, roots and fruits are acquired from forests. The policy thus aims to improve human livelihoods by ensuring that forests keep providing an array of these goods and services on sustainable basis. Its objectives and strategies include:

- i. Encouragement of the expansion of forest reserves to meet the needs of the rural people.
- ii. Sustainable management of forest resources.
- iii. Reduction of rural – urban migration and enhancing income generation through the promotion of scientific exploitation of non-wood forest products and engaging the rural populace in sustainable agroforestry practices.
- iv. Participatory approach in the establishment and management of forest reserves, community woodlots, shelterbelts etc.
- v. Promotion of the establishment of multipurpose tree species, including Gum Arabic, Shea butter, Parkia, breadfruit, and medicinal plants species.
- vi. Promotion of Agro-forestry practices for food security (Apiculture, Mushroom production, Snail breeding and Wildlife domestication).

vii. Establishment of co-operatives and ensuring appropriate pricing of NTFPs

d. Woodfuels

The policy recognized the role of fuelwood in household energy supply in Nigeria, where over 70% of the population rely on it for domestic energy supply. An estimated 80-88million m³ of wood are consumed annually 80% of which is fuelwood. This implies scarcity in the arid and semi-arid zones as deforestation increases, resulting in women and children spending more time and covering greater distances to harvest wood. The policy therefore aims to encourage the establishment and sustenance of woodlots at all levels through the provision of quality and improved seedlings, and other incentives and at the same time encourage the development of affordable and readily available alternatives to wood fuels. Its objectives and strategies included:

- i. Ensuring the sustainable supply of wood fuels.
- ii. Conservation and protection of the environment.
- iii. Provision of income generating opportunities to communities.
- iv. Promotion of viable alternatives to wood fuels.
- v. Encouragement of the establishment and maintenance of woodlots by communities and the private sector to supply fuel woods on sustainable basis.
- vi. Sustenance of research on fast growing plant species and affordable alternative sources of energy.
- vii. Sustenance of advocacy and awareness campaigns on effects of deforestation.
- viii. Discouragement of indiscriminate felling of trees for fuel wood supply at all levels.

- ix. Facilitation of subsidy provision on available alternative energy sources.
- x. Promotion of the development of cheaper and readily available alternatives to wood fuels.

In 2015, the eleventh session of the UN Forum on Forests (UNFF 11) is expected to review the International Arrangement on Forests (IAF), including progress made towards the achievement of the four Global Objectives on Forests and the implementation of the Non-Legally Binding Instrument on All Types of Forests (Forest Instrument). This is a voluntary agreement adopted by the UN Economic and Social Council in 2007 (FAO, 2014). This Forest Instrument set out 25 national-level policies and measures to achieve sustainable forest management, and 19 measures related to international cooperation and the means of implementation. These four Global Objectives on Forests are:

- i. Reversal of the loss of forest cover worldwide through sustainable forest management, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation.
- ii. Enhancement of forest-based economic, social and environmental benefits, by improving the livelihoods of forest-dependent people.
- iii. Significant increment to the area of sustainably managed forests, including protected forests, and the proportion of forest products derived from sustainably managed forests.
- iv. Reversal of the decline in official development assistance for sustainable forest management and significant mobilization of increased, new and additional financial resources from all sources for the implementation of sustainable forest management.

FAO's *State of the World's Forests* (SOFO) 2014 focused on the promotion of the socioeconomic

role of forests in sustainable development of nations. It presented an independent technical review of progress towards enhancing the socioeconomic benefits of forests according to the second Global objective stated above. This involved an examination of measures taken by countries to promote the socioeconomic benefits of forests and an assessment of their relative effectiveness. Nigeria was conspicuously missing in the evaluation as a result of unavailable forest policy developments since the agreement was signed in 2007. It is therefore expedient that as a voluntary signatory to the Forest Instrument, greater attention should be given to the role of forestry in national development.

Recommendations

Nigeria's national forest policy has been more focused on achieving objective 3 of the Global Objectives on Forests, with other aspects of forest management, retaining peripheral roles in the document. The following recommendations are made to enhance the efficiency of forest management in Nigeria across all levels of government in the light of current socioeconomic realities:

- i. Strengthening of the role of forest communities in the management of forests around them.
- ii. Facilitating the review of the Land Use Act to enhance forest management and private participation in forestry development
- iii. Broadening forest policy to recognize the value of other forest industries beyond timber production.
- iv. Recognition of the role of agriculture in forest degradation and develop appropriate strategies to discourage shifting cultivation while promoting more mechanized and modern farming systems.
- v. Strengthening of agricultural extension services and forest monitoring personnel and facilities.
- vi. Promotion of markets for other wood and non-wood forest products especially those that have direct socioeconomic benefits for the rural dwellers.

- vii. Formalization and strict monitoring of charcoal production especially in southern Nigeria where it is growing in popularity especially as an export commodity as a result of increased international demand.
- viii. Aggressive promotion and distribution of higher efficiency stoves for charcoal and fuelwood use in homes and in cottage industries
- ix. Provision of subsidy to enhance the purchase of efficient stoves seeing that majority of household energy is still supplied by fuelwood.
- x. Strengthening of research and development of local production of efficient woodfuel stoves to further facilitate alternative income sources in rural areas.

Conclusion

Sustainability is a function of the proper management of its three interconnected pillars; social, economic, and environmental. Nigeria's National Forest Policies have hitherto focused on the environmental, leaving the economic and social in the background. However, the environment rarely changes without input from anthropogenic elements. Hence there is a need to re-focus on the socio-economic realities of forest-dependent people in the review and implementation of Nigeria's forest policy.

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