RESOLVING INSTITUTIONAL IMPEDIMENTS TO FOSTER CONSERVATION OF THREATENED AND UNDER-UTILIZED RAINFOREST FLORA IN SOUTHERN NIGERIA

BY

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SYNOPSIS

- Introduction
- Objectives
- Methodology
- Results & Discussion
- Conclusion
INTRODUCTION

Nigeria

- Land area: 923,768 km$^2$.
- Human population: 140.4m (NPC, 2009).
- Nigeria had 600,000km$^2$ natural forest in 1897, in 1951 the natural vegetation was estimated to be 360,000km$^2$ (Fayenuwo, et al. 2011).
- Primary forest declined from 326,000 ha in 2005 to zero in 2010 (FAO, 2010; Blaser, et al. 2011).
- Change in forest area reported by FAO (2010) was calculated using linear extrapolation of data from 1977 to 1994 (Blaser, et al. 2011)
Southern Nigeria

- Population: 65m;
- Density: 324 pers./km²;
- Total land area: 22% of Country’s Land Area;
- Rainforest states (Edo, Cross River, Ondo, Ogun, Osun, Ekiti & Oyo) had sizeable forest up to 1980s;

Fig. 1: Per capital land size in Southern States
INTRODUCTION... CONT’D

- 17 States.
- 355 Local Govt. Areas – Forestry issues not in mandate of LGCs.
- F/G: controls, protects & manages 3 National Parks in the south.
- States protect & control F/Rs, G/Rs Sanctuaries.
- No production forest outside F/Rs in almost all States.

<table>
<thead>
<tr>
<th>S/No</th>
<th>State</th>
<th>1Population (2006)</th>
<th>Local Govt. Areas</th>
<th>2Land Area (ha)</th>
<th>2Area of Forest Reserve (ha)</th>
<th>2Forest Reserve/Land Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abia</td>
<td>2,833,999</td>
<td>17</td>
<td>632,000</td>
<td>8,224</td>
<td>1.30%</td>
</tr>
<tr>
<td>2</td>
<td>Akwa Ibom</td>
<td>3,920,208</td>
<td>31</td>
<td>708,100</td>
<td>30,216</td>
<td>4.27%</td>
</tr>
<tr>
<td>3</td>
<td>Anambra</td>
<td>4,182,032</td>
<td>21</td>
<td>484,400</td>
<td>36,405</td>
<td>7.52%</td>
</tr>
<tr>
<td>4</td>
<td>Cross River</td>
<td>2,888,966</td>
<td>18</td>
<td>2,015,600</td>
<td>271,611</td>
<td>13.48%</td>
</tr>
<tr>
<td>5</td>
<td>Delta</td>
<td>4,098,391</td>
<td>25</td>
<td>1,768,800</td>
<td>88,109</td>
<td>4.98%</td>
</tr>
<tr>
<td>6</td>
<td>Edo</td>
<td>3,218,332</td>
<td>18</td>
<td>1,780,200</td>
<td>597,557</td>
<td>33.57%</td>
</tr>
<tr>
<td>7</td>
<td>Enugu/Ebonyi</td>
<td>5,430,799</td>
<td>17/13</td>
<td>1,283,100</td>
<td>42,836</td>
<td>3.34%</td>
</tr>
<tr>
<td>8</td>
<td>Imo</td>
<td>3,934,899</td>
<td>27</td>
<td>553,000</td>
<td>1,580</td>
<td>0.29%</td>
</tr>
<tr>
<td>9</td>
<td>Lagos</td>
<td>9,013,534</td>
<td>20</td>
<td>334,500</td>
<td>10,147</td>
<td>0.30%</td>
</tr>
<tr>
<td>10</td>
<td>Ogun</td>
<td>3,658,098</td>
<td>20</td>
<td>1,676,200</td>
<td>275,362</td>
<td>16.43%</td>
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<tr>
<td>11</td>
<td>Ondo/Ekiti</td>
<td>5,825,236</td>
<td>18/16</td>
<td>2,845,400</td>
<td>305,541</td>
<td>14.58%</td>
</tr>
<tr>
<td>12</td>
<td>Osun</td>
<td>3,423,535</td>
<td>30</td>
<td>925,100</td>
<td>91,268</td>
<td>9.87%</td>
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<tr>
<td>13</td>
<td>Oyo</td>
<td>5,591,589</td>
<td>33</td>
<td>2,845,400</td>
<td>169,173</td>
<td>5.13%</td>
</tr>
<tr>
<td>14</td>
<td>Rivers/Bayelsa Total (South) Nigeria</td>
<td>6,888,758</td>
<td>23/8</td>
<td>2,185,000</td>
<td>48,557</td>
<td>2.22%</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>64,908,376</td>
<td>355</td>
<td>20,036,800</td>
<td>1,976,586</td>
<td>9.8%</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>140,003,542</td>
<td>774</td>
<td>92,376,800</td>
<td>4,801,996.1</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

Table 1: States with low FR/Land area ratio
INTRODUCTION... CONT’D

Drivers of forest decline, NTFPs & Livelihoods

- Loss of forests: sundry factors – human-induced stressors e.g. over-exploitation & habitat destruction.
- Livelihood systems of locals hinged on NTFPs.
- NTFPs act as safety net during planting off-season – period characterized by food/income scarcity.
- Examples of some booster NTFPs: *Piper umbellatum* & *P. guineense*; *Hallea ledermannii* & *Taumatococcus danielii*; *Enantia chlorantha* & *Drypetes gossweileri*; *Mondia whitei*, etc.
- Lately, lifestyles of rural & forest dependent people characterized by diminishing quality of (and lack of access to) small income forest products; seasonality and fluctuating values of products; poor harvest returns, and loss of species and habitats.
Objectives of study:

- examine past and extant forest policies and legislations;
- appraise forest tenure & incentive systems;
- investigate the status of some threatened and/or under-utilized plants and identify threat factors; and
- Suggest feasible and adaptable governance model.
METHODOLOGY

Location & Description of Study Area

Nigerian’s rainforest: Located bet. Lat. 4° and 9°N; extends to ca. 250km inland (Ola-Adams and Iyamabo, 1977).

Classification by rainfall & floristic composition: south eastern, central, wet western, and dry western (Ojo and Ola-Adams, 1996).

Classification by Timber: Class I (e.g. Milicia and Baillonella); Class II (e.g. Lophira and Hallea (Mitragyna)); Class III (e.g. Alstonia and Celtis); and Class IV (include spp. Likely to be useful for fuelwood, charcoal, etc.) (Redhead, 1971).
METHODOLOGY ... CONT’D

Fig. 1: Study Area
METHODOLOGY... CONT'D

Materials and methods

- Secondary data (reports and other materials); information sought via electronic (internet) and library sources.

- Field investigations & personal communication with local people in Edo, Cross River, Delta and Ondo States, Ekiti Osun and Ogun States.

- PRA techniques, interviews and focused group discussions were used to elicit information on the uses, state of indigenous knowledge and status of threatened & under-utilized plants in the wild.
RESULTS AND DISCUSSION

Past Forest Policies/Codes

- **1908 Forestry Ordinance**: 1st in Southern Nigeria after Lagos Colony & Southern Nigeria Protectorates – Timber rule of 1908: loggers plant or tend seedlings.

- **1916 Forestry Ordinance**: 1st Forestry Law after merger of north & south in 1914 – loggers were mandated to plant 24 seedlings in place of one economic tree removed.

- **1927 Forestry Ordinance**: Local Authorities to constitute Native Administration F/Rs; Governors to retain power (on behalf of stool owners) over all forest & timber resources.

- **1937 Forestry Ordinance**: 1st Standard Forestry Law (Native Authorities to create & manage own reserves and exercise complete control over revenue derived from such FRs);
RESULTS AND DISCUSSION... CONT'D

Past Forest Policies

- **1951 Constitution**: devolved authority from National to Regional governments – East, West and North (Aimufia, 1995).

- Tropical Shelter-wood System (TSS) introduced in southern Nigeria in 1944 (Kio, 1978).

- **1960**: Emphasis on Artificial regeneration.

- **1967 – 1970**: Western/Midwestern regions annulled dual forest management system with native authorities (NAs) (Adeyoju, 1979).

- **1988** Agricultural Policy subsumed national policy on Environment and forest-based resources.
RESULTS AND DISCUSSION... CONT'D

Extant Forest Policy/Legislation

- 1999 constitution places all environmental issues, including the management of forest resources under the control of State Government.
- State Forestry Services’ extant policies are not harmonized with national forestry policy.
- Execution of national forestry projects in States & LGAs inhibited by weak policy and lack of roles definition.
RESULTS AND DISCUSSION... **CONT'D**

**Current state of affairs in Forestry Services**

Forest services in most States operate within the civil service system and practice ‘**Top-down**’ management approach.

Large-scale **de-reservation** and **deforestation** is widespread – demand for land for agric., plantation development and community expansion.

Dearth of trained personnel, obsolete equipment, poor technological innovation characterize Forestry Services at all levels.
RESULTS AND DISCUSSION... CONT’D

Fig. 2: Organization structure of the Ministry of Environment

Hon. Commissioner

Permanent Secretary

Six (6) Directors/Departments (Environ; FC&R; FP&U; Admin; F&A; WMB).

Environ, FC&R, FP&U: 18 Units in
Tenure system

Tenure system defines **who owns and who can use what resources for how long, and under what conditions** (ITTO, 2011).

Land & Native Rights Ordinance (1916) established land tenure system in southern Nigeria.

Tenure system codified in regional laws in 1951.

All lands in Nigeria nationalized by 1978 Land Use Act.

Variants of forest tenure (6): Forest Reserve, Communal Forest, Protection Forest (erosion prone areas/over grazed areas), Reclaimed Marginal Land/Mine sites, Protected Trees, and Rights of usage (Adeyoye, 1979).
RESULTS AND DISCUSSION... CONT’D

Incentive System

An incentive is any source of positive or negative motivation that influences someone’s behaviour; it is economic when it is calculated in terms of price or time, and legal when incorporated in rules that authorize or prohibit certain kinds of behaviour (FAO, 1997).

1927 & 1937 Ordinances: allowed community participation in the establishment Native Authority (NA) Forest Reserves and management of other FRs.

Stakeholder involvement in governance structure in Cross River State: Forestry Commission handles forestry matters.

In 16 States forest management objectives operate within the limits of civil service structure: emphasis on increased timber harvest & revenue generation (ITTO, 2007).
RESULTS AND DISCUSSION... CONT'D

IUCN Red List of Threatened Species

- All Critically Endangered (CR), Endangered (EN), and Vulnerable (VU) species are ‘threatened’.
- CR – Species facing **extremely high risk** of extinction in the wild in the **immediate future**;
- EN - Species facing **high risk** of extinction in the wild in the **near future**;
- VU – Species facing a **high risk** of extinction in the medium-term future;
- Lower risk (LR) – When it has been evaluated that a species does not satisfy any of the above criteria;
- Extinct (EX) – A species is extinct when there is no reasonable doubt that the last individual has died.
RESULTS AND DISCUSSION... CONT’D

Threatened tree species

- Nigeria has 4715 vascular plants with 170 threatened (IUCN, 2004);
- 560 species of forest trees; 205 endemic;
- Endemic trees: Critically endangered: 16 (IUCN Red List), Endangered: 18; Vulnerable: 138 (Borokini, et al, 2011);
- Rainforest has 67% mono-specific tree genera (genus represented by one species) (Bakare and Oguntala, 1993);
- Lepidobotrys staudtii Engl. (Family: Lepidobotryaceae) represented by only one genus and species in the world flora (Bakare and Oguntala, 1993).
RESULTS AND DISCUSSION... CONT'D

- 24 endemic forest species are common to all regions (Ojo and Ola-Adams (1996)).

- 22 of the species have medicinal values

- 6 Species - Ceiba, Musanga, Piptadeniastrium, Okoubaka, Staudtia, Trilepisium are threatened/rare mono-specific tree genera (Bakare and Oguntala, 1993)

<table>
<thead>
<tr>
<th>Species*</th>
<th>Local Name</th>
<th>Family</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alstonia boonei</td>
<td>De WIld</td>
<td>Ukhu</td>
<td>Apocynaceae</td>
</tr>
<tr>
<td>Antiaris toxicana</td>
<td>(A. Chev.)</td>
<td>Ogiovu</td>
<td>Moraceae</td>
</tr>
<tr>
<td>Blighia sapida</td>
<td>Konig</td>
<td>Ukpe</td>
<td>Sapindaceae</td>
</tr>
<tr>
<td>Ceiba pentandra</td>
<td>(Linn) Gaertn.</td>
<td>Okha</td>
<td>Bombacaceae</td>
</tr>
<tr>
<td>Discoglymphremna caloneura</td>
<td>(Pax) Prain</td>
<td>Uguomafian</td>
<td>Euphorbiaceae</td>
</tr>
<tr>
<td>Entandrophragma angolense</td>
<td>(Welw) C. DC</td>
<td>Ogwawo</td>
<td>Miliaceae</td>
</tr>
<tr>
<td>Enantia chlorantha</td>
<td>Oliv.</td>
<td>Eranbavbogo</td>
<td>Annonaceae</td>
</tr>
<tr>
<td>Funtumia elastica</td>
<td>(Preuss) Stapf.</td>
<td>Anyan</td>
<td>Apocynaceae</td>
</tr>
<tr>
<td>Guarea cedrata</td>
<td>A. Chev.</td>
<td>Obobonofia</td>
<td>Miliaceae</td>
</tr>
<tr>
<td>Hannoia klaineana</td>
<td>Pierre &amp; Engl.</td>
<td>Uguekpokia</td>
<td>Simaroubaceae</td>
</tr>
<tr>
<td>Khaya ivorensis</td>
<td>A. Chev.</td>
<td>Ogwawo</td>
<td>Miliaceae</td>
</tr>
<tr>
<td>Macaranga barteri</td>
<td>Muell. Arg.</td>
<td>Ohaha</td>
<td>Euphorbiaceae</td>
</tr>
<tr>
<td>Microdesmis puberula</td>
<td><em>Hook f.ex Planch</em></td>
<td>Erankpata</td>
<td>Pandaceae</td>
</tr>
<tr>
<td>Monodora myristica</td>
<td>(Gaertn) Dunal</td>
<td>Ebenoyoba</td>
<td>Annonaceae</td>
</tr>
<tr>
<td>Musanga cecropioideus</td>
<td>R. Br.</td>
<td>Ogohen</td>
<td>Moraceae</td>
</tr>
<tr>
<td>Okoubaka aubrevillei</td>
<td>Pellegr. &amp; Normand</td>
<td>Akoebisi</td>
<td>Octoknemaceae</td>
</tr>
<tr>
<td>Piptadeniastrium africanum</td>
<td>(Hook F.) Brenam</td>
<td>Ekhimi</td>
<td>Mimosoideae</td>
</tr>
<tr>
<td>Pycnanthus angolense</td>
<td>(Welw) Warb</td>
<td>Unoghan</td>
<td>Myristicaceae</td>
</tr>
<tr>
<td>Rinorea oblongifolia</td>
<td>(C. H. Wright) Marq. Ex Chipp</td>
<td>Iyokhoeze</td>
<td>Violaceae</td>
</tr>
<tr>
<td>Strombosia pustulata</td>
<td>Oliv</td>
<td>Ubelu</td>
<td>Olacaceae</td>
</tr>
<tr>
<td>Staudtia stipitata</td>
<td>Warb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steculia tragacantha</td>
<td>Lindi</td>
<td>Oporopor</td>
<td>Steculiaceae</td>
</tr>
<tr>
<td>Trilepisium madagascariense</td>
<td>DC</td>
<td>Ukputu</td>
<td>Moraceae</td>
</tr>
<tr>
<td>Zanthoxyllum gilletii</td>
<td>(Dewild)</td>
<td>Okor</td>
<td>Rutaceae</td>
</tr>
</tbody>
</table>

Sources: Bakare and Oguntala (1993); *Ojo and Ola-Adams (1996)

Table 2: Tree species encountered in all rainforest sites
RESULTS AND DISCUSSION... CONT'D

Under-utilized Plants

Those species that are of minor importance in terms of production, consumption and utilization & are not fully exploited to contribute to the national economy (Aboagye, et al., 2007).

Species that were used in the past but on account of difficulty of cultivation, yield/processing and use; or species with desirable (but untapped) potential for income generation, food/health security, etc.

Common terms that have been used interchangeably are: ‘minor’, ‘desirable’, ‘promising’, 'orphan‘, ‘niche’, ‘traditional‘, prospective’, ‘neglected‘, etc.
RESULTS AND DISCUSSION... CONT'D

Under-utilized Plants

Have the following features:

- Link with culture/tradition,
- Poorly documented & distributed; poor biology, cultivation and use-values;
- Narrow ecological niches,
- Easy to collect; good adaptation to traditional production systems,
- Lack of research, extension services, quality planting materials – all affect farmers, policy and decision makers, donors, technology providers and consumers.
Okoubaka aubrevillei
Pellegr. & Nomand
(OCTOKNEMACEAE)
Local Name: Akoebisi
- Totemic.
- All parts of plant are used to ward off evil spirits and treat sundry ailments.
- Myrianthus arboreus is the only plant known to grow close to Okoubaka aubrevillei.
- Threat factors: Harvest pressure, habitat loss.
- Status in the wild: Very rare.
RESULTS AND DISCUSSION... CONT’D

*Drypetes gossweileri*  
S. Moore (Euphorbiaceae)

Local Name: Okhuaba

- Bark eaten as **laxative**,  
- As **embrocation** when ground and mixed with water to treat ailments, e.g. Arthritis;  
- Pregnant women wear seeds round neck as **charms**; Seeds worn round ankle and **used in native dances** (Kennedy, 1936).  
- Threat factors: Harvest pressure, habitat loss  
- Status in the wild: Very rare.
RESULTS AND DISCUSSION...

**Kigelia africana**
Benth. (Bignoniaceae)

Local Names: Ogikhimi; Ghana (Nana, Etua, etc.)

- Pile, dysentery infertility.
- Threat Factors: Harvest pressure, Habitat loss.
- Status in the wild: Rare.

(Ofori, et al. 2011)
RESULTS AND DISCUSSION... CONT’D

*Piper guineense* Thonn & Schum (Piperaceae)

Local Name: Oziza, Usira

- Food, stimulant embrocation for arthritis; Bronchitis, etc. (Burkill, 1995).

- Threat factors: Habitat loss, Harvest pressure.

- Status in the wild: Rare.

Photo: [www.rarepalmseed.com](http://www.rarepalmseed.com)
RESULTS AND DISCUSSION... CONT'D

*Piper umbellatum* L. (Piperaceae)

Local Name: Ebe ahanhi

- Food, suppository for pile, worm expeller, fever.

Wide spectrum of pharmacological activities - antibacterial, anti-inflammatory, analgesic, antioxidant, cytotoxid, antimalarial (Roersch, 2010).

- Threat factors: Habitat loss, Harvest pressure.

- Status in the wild: Rare.

Photo: Domis & Oyen (2008)
RESULTS AND DISCUSSION...
CONT’D

*Thaumatococcus daneilii* (Benth) (Marantaceae)

- 2000 times sweeter than table sugar; contains Thaumatin (naturally occurring sweet protein) discovered by H. Van der Wel in 1971.
- Leaf for wrapping food – adds flavour to taste.
- Threat factor: Habitat loss, Harvest pressure.
- Status in the wild: Rare.

RESULTS AND DISCUSSION... CONT’D

*Megaphrynium macrostachyum* (Benth.) Milne-Redh (Marantaceae)

- Thatching (leaves),
  - Wrapping (leaves),
  - Mat-making (stalk),
- Traditional Sieve,
- Basket & utensils (stalk).

- Threat factors: Habitat loss,
- Harvest pressure.

- Status in the wild: Rare.

Photo: Isikhuemen (2011); *African Study Monographs*, Suppl. 33: 29-48, (2006);

[http://database.prota.org/PROTAhtml/Megaphryniummacrostachyum](http://database.prota.org/PROTAhtml/Megaphryniummacrostachyum)

RESULTS AND DISCUSSION... CONT’D

*Mondia whitei* (Hook f.) Skeels (Apocynaceae)

Common name: White’s ginger

- Aphrodisiac (Erectile dysfunction); Urinary tract infection, Jaundice, etc.
  - (cf. Aremu, *et al*. 2011; Lampiao, *et al.*, 2008; Lue, 2000; Martey and He, 2010);

- Listed as ‘Vulnerable Species’ by South Africa Red Data List (Victor, 2002).

- Threat factors: Harvest pressure; Habitat Loss.

- Status in the wild: Rare.

African Study Monog, Suppl. 33: 29-48, May 2006;


[www.plantzafrica.com](http://www.plantzafrica.com)
What type of governance model?

The ‘fences and fines approach’ to protected-area management practiced since FD started in 1901: characterized by obnoxious tenure & poor rules - perverse incentives resulting in loss of rainforest.

Forestry is no longer about trees, it is about people (Westoby, 1989).

Forest (resources) governance is defined as the set of rules (institutions) that control and determine what happens to a nation’s forest & associated resources, who gains and who gets hurt as a consequence (Contreras-Hermosilla, et al. 2008).
Need for functional governance model

Good forest governance stands on 5 pillars:

✓ transparency, accountability and public participation;
✓ stability of institutions and conflict management;
✓ quality of government administration;
✓ coherence of legislation and rule of law; and
✓ economic efficiency, equity and incentives (World Bank 2009).
RESULTS AND DISCUSSION... CONT’D

Conditions for entrenching good governance model at national level

Consider constitutional/institutional reforms:

- re-visit forest policy and code as well as forest tenure/land use and incentive systems;

- properly decentralize authority and define roles among government and non-government actors (the civil society, private sector & communities).

- make Local Government Councils autonomous.

Scrap the office in charge of Special Ecological Fund; issues of funding & disbursement should be statutory.

Comprehensive forest resource inventory is expedient for planning and decision-making.

Mobilize funds for research, extension and monitoring of environmental resources and associated challenges.
RESULTS AND DISCUSSION... CONT’D

Conditions for entrenching good governance model in States

- Each State Government should establish autonomous agency (Forestry Commission) to handle the affairs of forestry and related issues (borrow a leaf from Cross River State) (next slide).
- Conduct inventory to determine the state of vegetation in all ecological zones, including forest- and off-reserve areas; in addition, they must endeavour to list and classify under-utilized rainforest flora using scientific and indigenous knowledge.
- Enact policies to promote community-based programmes and private sector investment in the cultivation, domestication and rehabilitation of under-utilized plants;
- Provide incentives (e.g. inputs, tax holiday) to farmers for the protection, cultivation, and restoration (of habitats) of under-utilized plants under agroforestry practices and in private farm holdings;
- Establish GIS’ as well as data bank for all environmental resources, including eco-types and associated vegetation.
- Mobilize financial, material and human resources.
RESULTS AND DISCUSSION... CONT’D

Forestry Service under State Ministry of Environment (e.g. Edo State)

- Hon. Commissioner
- Permanent Secretary
- Six (6) Directors/Departments (Environ; FC&R; FP&U; Admin; F&A; WMB).
- Environ, FC&R, FP&U: 18 Units in

Forestry under a Commission (e.g. Cross River State)

- Board Chairman/CEO
- Four (4) Board Members (Commissioners) (Each member oversees a Technical)
- Board Sec. (P/S) (Admin/Accounting Officer)
- Eight (8) Departments (Reg., A/Forestry, NTFPs & Medicinal plts; Cons/Prot./Compliance; W/Ecotourism; Forestry Bus; Admin/HR; Fin/Supply/Planning/Research/Stat.
- Six (6) Units
RESULTS AND DISCUSSION... CONT’D

Conditions for entrenching good governance model at local level

- Decentralization will usher in local participate in planning & decision making; in particular, political decentralization will bring government closer to the local people.

- Establish Agroforestry, Community-based Resources Management/Conservation departments and provide extension services in each council area.

- Develop incentive-driven policies to encourage rural communities & individuals to cultivate, rehabilitate, domesticate and protect threatened and under-utilized rainforest species.

- Popularize IK through inventory, listing and classification of threatened and under-utilized plants.

- Engender private and community involvement in public education to demystify certain categories of under-utilized plants.
CONCLUSION

The past and extant National and States’ forest policies, tenure & incentive systems as well as the Land use Act of 1978 have contributed significantly to the current state of degradation of the rainforest ecosystem loss of species.

For over a century, forest administrations have pursued increased utility and improved revenue returns while neglecting ecosystem health.

No reliable information on the status of threatened and under-utilized flora in the rainforest.

The need to institutionalized people- and ecosystem friendly governance system across all level of governance is imperative.
I thank the Director and Staff of UNU-INRA, and my colleagues for their wonderful support.
THANK YOU
STATEMENT MADE BY THE DIRECTOR OF FORESTS IN NIGERIA IN 1918.

In ‘the Brief on Forest Management and Control in Midwestern Nigeria, Ogbe (1966) reproduced the following excerpt:

“Writing in 1918, H. N. Thompson, CMG, and 1st Director of Forests in Nigeria states: “Forests take a long time to mature, and there is always a temptation to exploit them prematurely. The continued carrying out of a well-considered forest policy and the details of management of reserves must be undertaken by government, which alone can exercise due discrimination in the proper distribution of forest produce to the agricultural population; can deal impartially with opposing interests of different communities; and can secure that continuity of policy and method, by means of laws and regulations, from generation to generation, which is essential to forest administration. Native administration cannot take a sufficiently far-seeing view, and are tempted to sacrifice the interest of the future to present needs. This principle of state control is enforced even in Europe, in those countries which are most advanced in forestry organization, viz., France and Germany, where communal, municipal and even private forests are under the supervision of government”. 

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