



**Food and Agriculture Organization
of the United Nations**

Forest Management in the ECOWAS Region: Situation and Trends

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Niamey, Niger, 27-29 April 2015



Background to Forest Management

- Historically, forest management has mostly considered the biological issues **with strong focus on silviculture for wood production (on a sustained yield basis)**; with little emphasis of other forestry functions.
- **Since Rio**, the scope/concept of forest management has been broadened to include wider environmental issues such as **biodiversity, social and economic matters and, more generally, the concept of sustainability, including Sustainable Forest Management (SFM)**.
- **SFM is "a dynamic and evolving concept aims to maintain to enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations" [UNFF, 2007].**
- Today it is internationally accepted that SFM is about more than sustained yield and includes all forest values: social, environmental, cultural and spiritual (i.e. a reflection of the multidisciplinary complexity).



Sustainable Forest Management: Criteria & Indicators...

- **Prior to UNCED (Rio) in 1992, ITTO had established a set of principles that comprise an international reference standard for the development of more specific national guidelines for sustainable management of natural tropical forests for wood production.**
- **After Rio, a positive step aimed at developing the Forest Principles has been the broad international agreement to formulate scientifically sound criteria and indicators for the management, conservation and development of all types of forests.**
- **Since UNCED, C&I for SFM have been formulated (and tested under CIFOR coordination) within the framework of several international meetings, including the Helsinki Process, the Montreal process, the Tarapoto Proposal, the Dry Zone Africa Proposal, the Near East proposal and the Lepaterique Process of Central America.**
- **C&I are tools which can be used to define, implement and monitor SFM, nationally and at the forest level; and are considered objective, cost-effective and relevant in assessing the sustainability of prevailing forest management practices.**



... Sustainable Forest Management: Criteria and Indicators

- Existing national and regional C&I sets for SFM have been developed in an attempt to operationalize SFM.
- **The purpose of C&I is to provide a tool for monitoring national progress towards the attainment of SFM goals, and government-led C&I initiatives with a common set of national-level criteria.**
- **Seven criteria or thematic areas have emerged which define sustainable or good forest management (cf. FAO 2003):**
 - extent of forest resources
 - forest health and vitality
 - Productive functions of forests
 - Biological diversity
 - Protective functions of forests
 - Socio-economic benefits and needs
 - Legal, policy and institutional framework



Sustainable Forest Management: Forest Certification

- Forest certification is a **process whereby an independent third-party** (certifier) assesses the quality of forest management in relation to a set of **predetermined standards**
- It was introduced in 1993 as a market-based response to address public concerns related to deforestation (in the tropics), resulting loss of biodiversity and the perceived low quality of forest management (Rametsteiner and Simula 2003).
- **C&I and forest certification share some similarities** in that both tools are voluntary and promote SFM; incorporate key elements of sustainability, and are evidenced-based (data collected is used to establish evidence)
- **They differ in scale** (C&I are national, while FC are sub-national) **and purpose**: C&I describe the status of SFM (with no targets or performance expectations), whereas FC is based on prescriptive standards (an assessment against performance standards).

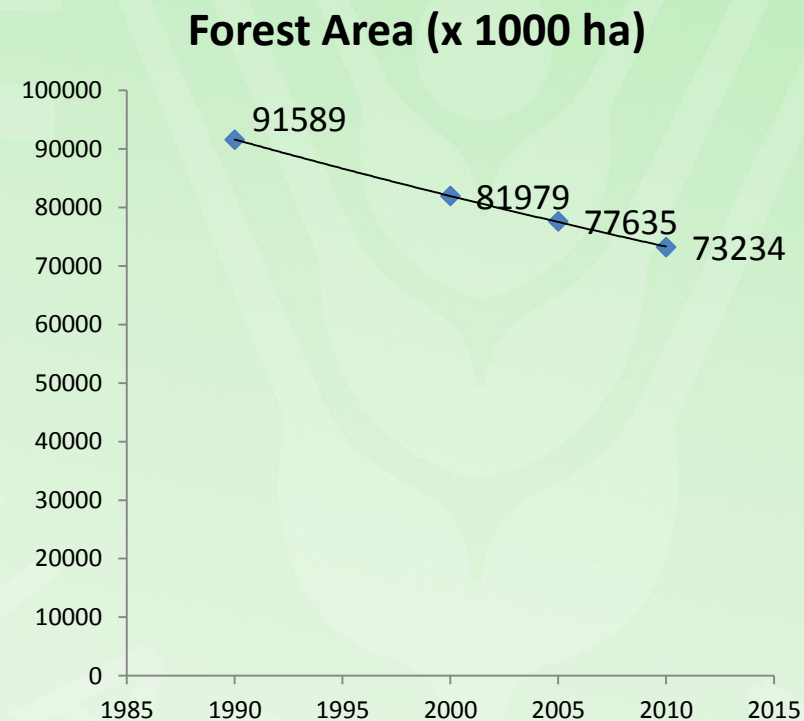


Current situation and trends of Forest Mgt. West Africa

- Attempts to **assess the status and progress towards SFM** can only be done using a **common or harmonized basis**.
- **Comprehensive literature on this topic is rare**, except for reports by FAO and ITTO based on the 7 thematic areas/criteria stated above.
- Most reports from FAO (2005 and 2010) have been made globally on Central and West Africa; while reports from ITTO have only been concerned with ITTO member countries.
- While **waiting for updates from the 2015 Global Forest Resource Assessment (FRA 2015)** report from FAO (<http://www.fao.org/forestry/fra/fra2015/en/>), we have extracted information for West African (ECOWAS) countries from the FAO(FRA **2010**) assessment to appraise the level and trends of forest management in West Africa.

Forest Extent and Trends West Africa

- FAO(2010) estimates the **extent of forests in West Africa at 73 million ha in 2010**;
- The trend in forest extent shows a **decreasing trend from 1990**, as shown in the figure.
- An average deforestation **rate of -1.12%** (about 903 000 ha/yr) has been estimated for the 1990-2010 period.
- In terms of area change, **Nigeria and Ghana have the highest** with 409 000 ha/yr and 122 000 ha/yr of deforestation respectively (see next slide)



Trends in forest extent in West Africa

Country	Trends in Forest Extent							
	1990-2000		2000-2005		2005-2010		Average (1990-2005)	
	x1000 ha	%	x1000 ha	%	x1000 ha	%	x1000 ha	%
Benin	-70	-1.29	-50	-1.01	-50	-1.07	-56.7	-1.12
Burkina Faso	-59.9	-0.91	-59.8	-0.98	-60	-1.03	-59.9	-0.98
Cape Verde	2.4	3.43	0.4	0.48	0.2	0.24	1.0	1.38
Côte d'Ivoire	10.6	0.10	15.4	0.15	-0.4	0.00	8.5	0.08
Gambia	1.9	0.42	2	0.43	1.8	0.38	1.9	0.41
Ghana	-135.4	-2.00	-115.4	-1.99	-115.4	-2.21	-122.1	-2.06
Guinea	-36	-0.51	-36	-0.53	-36	-0.54	-36.0	-0.53
Guinea-Bissau	-9.6	-0.44	-9.6	-0.46	-10	-0.49	-9.7	-0.46
Liberia	-30	-0.63	-30	-0.66	-30	-0.68	-30.0	-0.66
Mali	-79.1	-0.58	-79.2	-0.61	-79	-0.62	-79.1	-0.60
Niger	-61.7	-3.77	-12.4	-0.96	-12.4	-1.00	-28.8	-1.91
Nigeria	-409.7	-2.70	-409.6	-3.38	-409.6	-4.07	-409.6	-3.38
Senegal	-45	-0.49	-45	-0.51	-40	-0.47	-43.3	-0.49
Sierra Leone	-19.6	-0.65	-19.6	-0.68	-19.6	-0.71	-19.6	-0.68
Togo	-19.9	-3.40	-20	-4.59	-19.8	-5.88	-19.9	-4.62
Total W_Africa	-961	-1.11	-868.8	-1.09	-880.2	-1.17	-903.3	-1.12



Productive Functions of Forests

- The productive functions of the forest have often been used as main priority for forest management for timber production.
- Of the 73 million ha of primary forest in 2010, about 33.6% (24.6 million ha) are designated as production forest, for industrial round wood
- However, these statistics may be misleading given that about 25% (18 million ha) were designated as Unknown.

Designation	Extent	
	x 1000 ha	% of Forest Area
Production	24 607	33.6
Protection	3 588	4.9
Conservation	13 988	19.1
Multiple use	12 377	16.9
Social Services	220	0.3
Unknown	18 309	25



Protective Functions of Forests

- **Protective functions of the forest include erosion control, watershed protection, windbreaks & pollution filters.**
- **Watershed degradation is a major problem** in several African countries due to inappropriate farming practices that enhance soil erosion
- There is an increasing recognition of the **importance of watershed management in enhancing food security** ; in Africa watershed management is a key pillar in the agricultural strategy.
- Statistics for 2010 (FAO 2010) indicate that **only about 4.9%** (3.6 million ha) of primary forest in West Africa was designated as **protection forest** (mainly in **Carpe Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Mali & Togo**)



Biodiversity in West Africa

- **The role of forest in the conservation of biological diversity is well recognised** and Africa derives economic benefits from national parks and protected areas.
- **Many countries** are responding to concerns about the protection of biodiversity **through establishment of protected areas**, even though this is **not matched by increased investment in protection and management, resulting in many protected areas regarded as “paper parks”**
- **Assessment of biodiversity is difficult**, and mostly undertaken in protected areas and primary production forests.
- **Estimates from FAO (2010)**, indicate that of the 73 million ha classified as forest, **19.1%** (about 14 million ha) were designated **as conservation forests in West Africa.**
- The 24.6 million ha designated as production forest **also** contain biodiversity which could be conserved if properly managed.

Forest Health and Vitality in West Africa

- **Criteria for forest health and vitality** (e.g. defoliation, invasive species, pollution..) are **difficult to assess, due to lack of technical know-how and equipment;**
- **Often** monitoring forest health & vitality is **restricted to monitoring forest fires, insects and diseases**
- Only **a few countries** (Benin, Gambia, Ghana, Guinea, Mali, Niger Senegal & Sierra Leone) **reported incidences** of either forest fires; wild fires, or insects and diseases.

Country/Area	Forest Fire		Insects	Diseases	Other
	1000 ha	% Wild Fire	1000ha	1000 ha	Biotic Agent
Benin	47	40	–	–	
Burkina Faso	–	–	–	–	
Cape-Verde	–	–	–	–	
Côte-d’Ivoire	–	–	–	–	
Gambia	–	100	–	–	2
Ghana	500	80	2	2	
Guinea	–	100	–	–	
Guinea-Bissau	–	–	–	–	
Liberia	–	–	–	–	
Mali	168	68	–	–	
Niger	27	–	–	2	
Nigeria	–	–	–	–	
Senegal	816	14	–	–	
Sierra-Leone	–	90	–	–	
Togo	–	–	–	–	
Total	1558		2	2	2



Socio-economic Functions of Forests in W. Africa

- Parameters commonly used to assess socio-economic functions of the forest include: the value of wood product removals, forest ownership, employment in the forestry sector..
- FAO (2010) estimates public ownership of forests in West Africa at 88.8%, with only **11.2% Private ownership.**
- More harvesting is for wood fuel (over 85%) compared to industrial round wood. This is far above the global average of 53%.
- While **volume of removals are reported** (see table), **few countries report on the value of removals.**

Trends in Removal of Wood Products in West Africa (FAO, 2010)

	Total volume (x 1000 m3)		
Product	1990	2000	2008
Round wood	13 374	21 430	20 850
Fuel wood	134 378	163 091	171 070
Total	147 752	184 521	191 930
% Fuel wood	90.9	88.4	89.6



Legal, Policy and Institutional Framework of Forests in W. Africa

- **Successful forest Management requires a sound forest policy indicating government commitment** to protect the permanent forest estate based on secure, long term land tenure for communities, concession holders and other forest users.
- Forest legislation enacted by government **should also reflect the principles of sustainability**, very crucial for SFM
- FAO(2010) indicates that **almost all countries have a forest policy and National forest laws** under implementation.



Legal, Policy and Institutional Framework of Forests in W. Africa

Country/Area	Forest Policy and Legal Framework 2008								
	Policy			National Forest Programme			Forest Law		
	National		Sub				93% National		Sub
	86%		7% National		71%				National
	Exists	Year	Exists	Exists	Year	Status	Type	Year	Exists
Benin	Yes	1994	No	Yes	2007	In implementation	Specific forest law	1993	No
Burkina Faso	Yes	1995	Yes	Yes	2006	In implementation	Specific forest law	1997	Yes
Côte d'Ivoire	Yes	1988	–	–	–	–	Specific forest law	1965	–
Gambia	Yes	1995	No	Yes	2000	Under Revision	Specific forest law	1998	No
Ghana	Yes	1994	–	Yes	1993	Under Revision	Specific forest law	1998	–
Guinea	Yes	1991	No	Yes	1989	In implementation	Specific forest law	1989	No
Guinea-Bissau	Yes	1992	No	Yes	1992	Under Revision	Specific forest law	1991	No
Liberia	Yes	2006	No	Yes	2008	In implementation	Specific forest law	1976	No
Mali	No	–	No	Yes	2002	In implementation	Specific forest law	1995	No
Niger	No	–	No	Yes	–	In implementation	Specific forest law	2004	No
Nigeria	Yes	2006	No	Yes	2002	Under Revision	No national forest law	–	Yes
Senegal	Yes	2005	No	Yes	1992	In implementation	Specific forest law	1998	No
Sierra Leone	Yes	2004	No	No	–	–	Specific forest law	1988	No
Togo	Yes	1998	–	Yes	–	–	Specific forest law	2008	–



Forest Management and Climate Mitigation

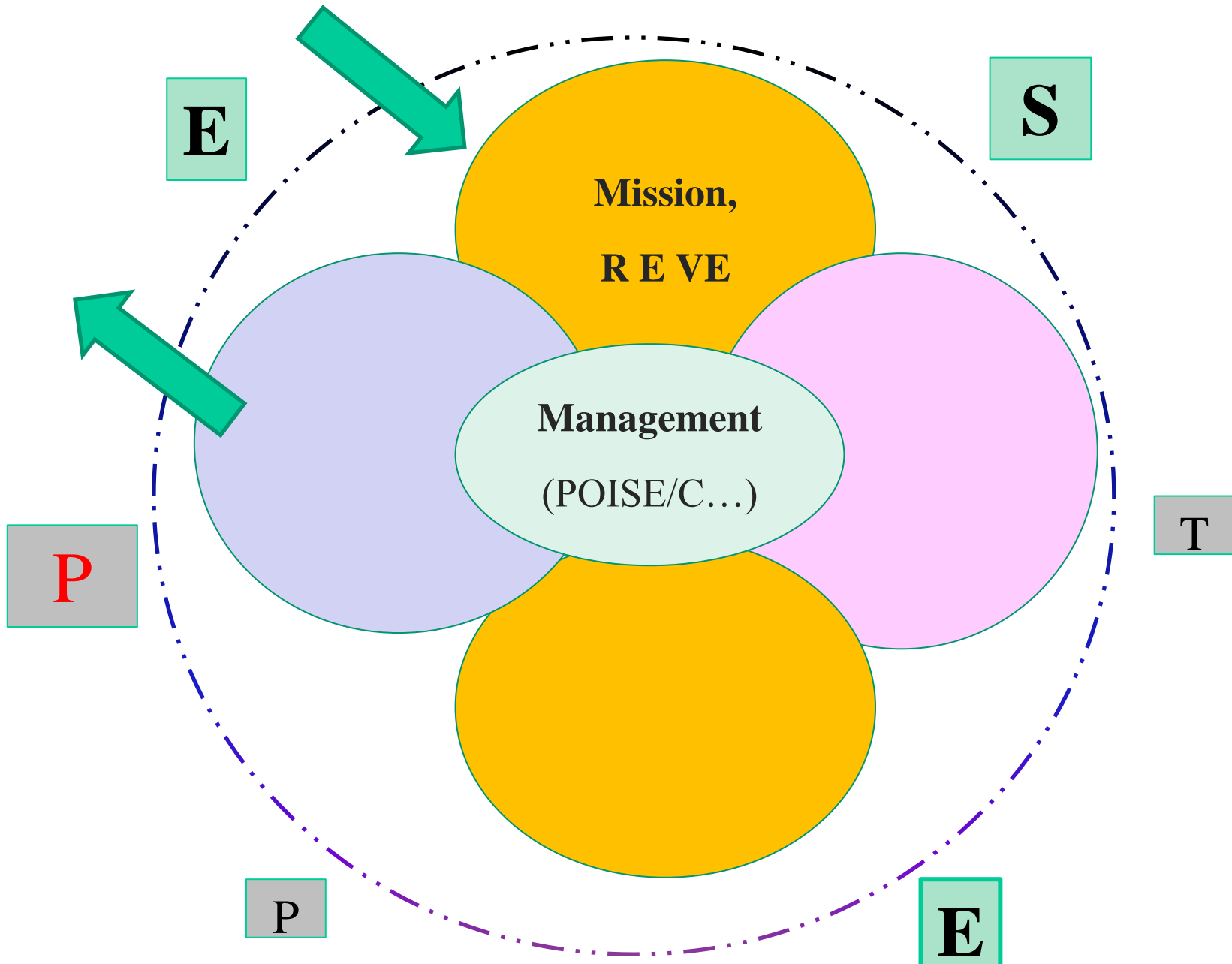
- **Global climate change** arising from increasing concentration of GHG is a **major environmental issue**. Forests are the most important terrestrial ecosystems that play important roles in sequestering and storing carbon.
- While the scope of the **Clean Development Mechanism (CDM) under the Kyoto Protocol was limited to afforestation and reforestation and does not include conservation and improved management of natural forests**; that of REDD+ (Reducing Emissions from Deforestation and Forest Degradation, sustainable management of forest, conservation and enhancement of carbon stocks) **is much wider, and includes the sustainable management of forests**.
- REDD+ is mitigation mechanism proposed by UNFCCC, and several countries, are engaged in the REDD+ “Readiness” activities, including the definition of national strategies, the development of national forest monitoring systems, and undertaking stakeholders' consultations.
- At the bottom-line, any forests 'saved' by REDD, or reforested, restored, or afforested will still need to be well managed.



Summary/Conclusion

- While a lot has been said and written about (sustainable) forest management, C&I and Forest Certification:
 - Only a small part of the World's forest (and Africans) [7.6% or 300 million ha in 2008] have been certified
 - Most of the certified forests are in : N. America 54% and Europe 34%
 - The biggest challenge for certification (<10%: 3% in Africa..) and hence SFM is in developing countries, where deforestation of valuable tropical forest is occurring.
 - Lack of or poor quality forestry data for reporting on status and trends in forest management is a major problem.
 - REDD+???

QU'IL ME SOIT PERMIS LA STEPPE DES BIENS ET SERVICES!



DE LA FICTION A LA REALITE...

Consommation : nature conjointe, exclusion

Q1 : Biens à Puisage / « inépuisables »?

- Energie solaire
 - Air / Ondes
 - Eau de pluie
 - Biodiversité / Ressources photogéné
- 

Q2 : Biens collectifs

- Eau de puits
- Retenue eau collinaire
- Route nationale

Q4 : Biens privés

- Fourneau solaire
- Air conditionné
- Eau en bouteille
- Route privée

Q3 : Biens à Péage

- Eau de la Société des Eaux
- Télévision payante
- Autoroute à Péage

ET SI LE SOLEIL ÉTAIT PRIVATISÉ DEMAIN?



Thank You