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THE IMPORTANCE OF GOVERNANCE AND BENEFIT SHARING IN THE SUSTAINABLE MANAGEMENT OF AFRICA'S FORESTS, TREES AND WILDLIFE

FRA 2010: Review of the African Perspective and Capacity Development Needs for FRA in Africa

Summary

This paper has been prepared for the 18th Session of the African Forestry and Wildlife Commission, to stimulate a review of FRA 2010 from the African perspective including capacity development needs. While providing an overview of the FRA 2010 and SOFO 2011 key findings for Africa, the paper evaluates the reporting process, both in terms of data availability and data quality, to identify key issues and areas of improvement for future assessments. The paper outlines important links to the long term strategy for global forest resources assessment which is attached as Annex.

Introduction

1. The mandate of FAO is to regularly provide information on the status and trends of the world's forests resources. The most recent Global Forest Resources Assessment (FRA 2010) analyzed the status and trends of the world's forest resources for the period 1990-2010. One of the key findings of FRA 2010 was that the rate of deforestation and loss of forest from natural causes is still high, but it was slowing down. At the global level, it decreased from an estimated 16 million hectares per year in the 1990s to around 13 million hectares per year in the last decade. At the same time, afforestation and natural expansion of forests in some countries reduced the net loss of forest area significantly at the global level. The net change in forest area in the period 2000-2010 was estimated at -5.2 million hectares per year (an area about the size of Togo), down from -8.3 million hectares per year in the period 1990-2000. Most of the loss of forest continued to take place in countries and areas in the tropical regions, while most of the gain took place in the temperate and boreal zones.

FRA 2010 Regional Key Findings

2. The estimated area in forest land use in Africa in 2010 was 674 million hectares (Table 1), about 23 percent of the total land area in the region and accounting for 17 percent of the global forest area.

Subregion	Area (1 000 ha)	%
Central Africa	254 854	37
East Africa	73 197	11
North Africa	78 814	12
Southern Africa	194 320	29
West Africa	73 234	11
Total Africa	674 419	100

Table 1: Forest area in Africa, 2010

3. The five countries with the largest forest area (Democratic Republic of the Congo, Sudan, Angola, Zambia and Mozambique) together comprised more than half the forest area of the continent (55 percent). The countries with the highest percentage of their land area covered by forest were Seychelles (88 percent), Gabon (85 percent), Guinea Bissau (72 percent), Democratic Republic of Congo (68 percent) and Zambia (67 percent).

4. While there are signs that the net loss of forests in Africa is decreasing (from 4.0 million hectares per year in the 1990s to 3.4 million hectares per year in the last decade), few countries have reliable data from comparable assessments over time, so the resulting trends should be treated with caution. A significant difference was reported in North Africa, where the net loss dropped from 590 000 ha per year to just 41 000 ha per year. To a great extent this was due to a sharp reduction in the net loss reported by Sudan, where recent efforts to gather new data on actual changes resulted in much lower figures than those estimated for 1990–2000, which were based on fairly old data. Southern Africa had the highest net loss over the last 20 years, although the rate has slowed in recent years (Table 2).

Sub-region	Area (1 000 ha)			Annual change (1 000 ha)	
	1990	2000	2010	1990–2000	2000–2010
Central Africa	268 214	261 455	254 854	-676	-660
East Africa	88 865	81 027	73 197	-784	-783
North Africa	85 123	79 224	78 814	-590	-41
Southern Africa	215 447	204 879	194 320	-1 057	-1 056
West Africa	91 589	81 979	73 234	-961	-875
Total Africa	749 238	708 564	674 419	-4 067	-3 414
World	4 168 399	4 085 063	4 032 905	-8 334	-5 216

Table 2: Forest area in Africa, 1990–2010

5. Africa also had extensive areas of land classified as ‘other wooded land’, with scattered tree growth, too sparse to be defined as forest. The total area was more than 350 million hectares, corresponding to 31 percent of the total area of other wooded land in the world.

6. Africa’s total area of planted forests was about 15 million hectares (2.3 percent of the total forest area), with the largest area located in North Africa. The area of planted forests increased by just under 2.5 million hectares in the region over the last 10 years. Sudan had the largest area of planted forests, with more than 6 million hectares including governmental, private and community planting schemes. South

Africa had almost 2 million hectares of planted forests of which almost three quarters were privately owned (corporate growers and individual commercial farmers).

7. The region stores about 21 percent of the global carbon in living forest biomass, with Central Africa containing the largest amount of carbon in forest biomass (Figure 1). Except for North Africa, all the subregions experienced a decline in carbon stocks in forest biomass between 1990 and 2010 because of the loss of forest area.

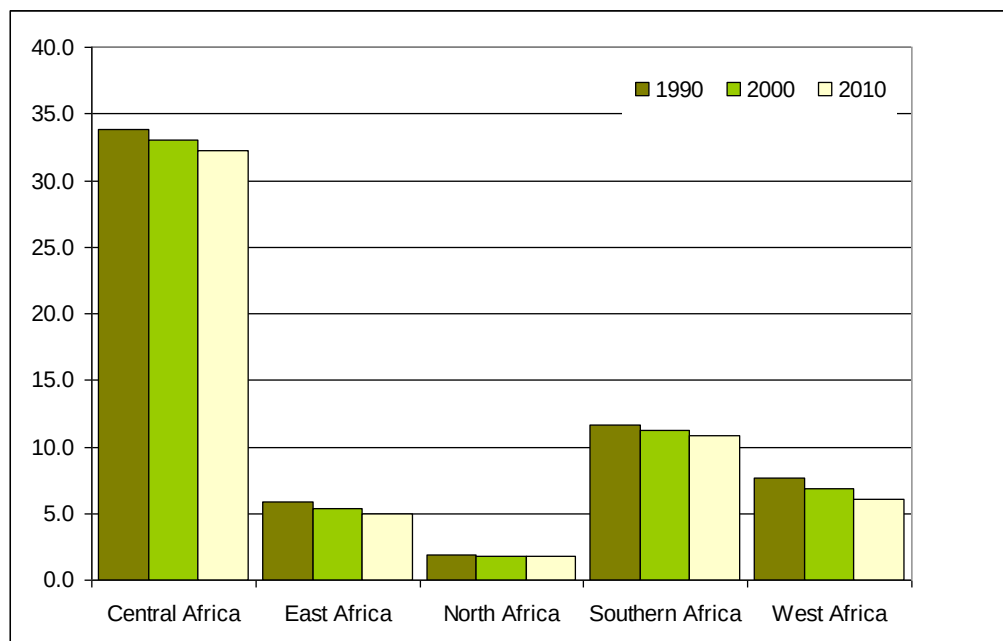


Figure 1: Carbon stock in forest biomass in Africa, 1990–2010 (Gt)

8. About 10 percent of the total forest area in the region was reported to be primary forest. There was evidence of an overall decline in primary forest area in the region (Figure 2), with primary forests declining by close to 700 000 ha annually between 1990 and 2000 and by around 570 000 ha per year over the period 2000–2010. Some of this decrease was caused by deforestation, some by alteration of forests through selective logging and other human interventions. Gabon, Sudan, Republic of the Congo, Madagascar and Central African Republic showed the largest primary forest area.

9. Most of the countries in the region showed an increase in forest area designated for conservation of biological diversity or showed no change in the last 20 years. Since 1990 the forest area primarily designated for the conservation of biodiversity increased by about 5 million hectares. At the sub-regional level, there was a substantial increase during the last decade, particularly as a result of increases in Central and East Africa. However, Southern Africa showed a negative change mainly because of the decrease in forest area reported by Mozambique. About 14 percent of the total forest area in Africa was designated for conservation of biological diversity in 2010 (figure 3).

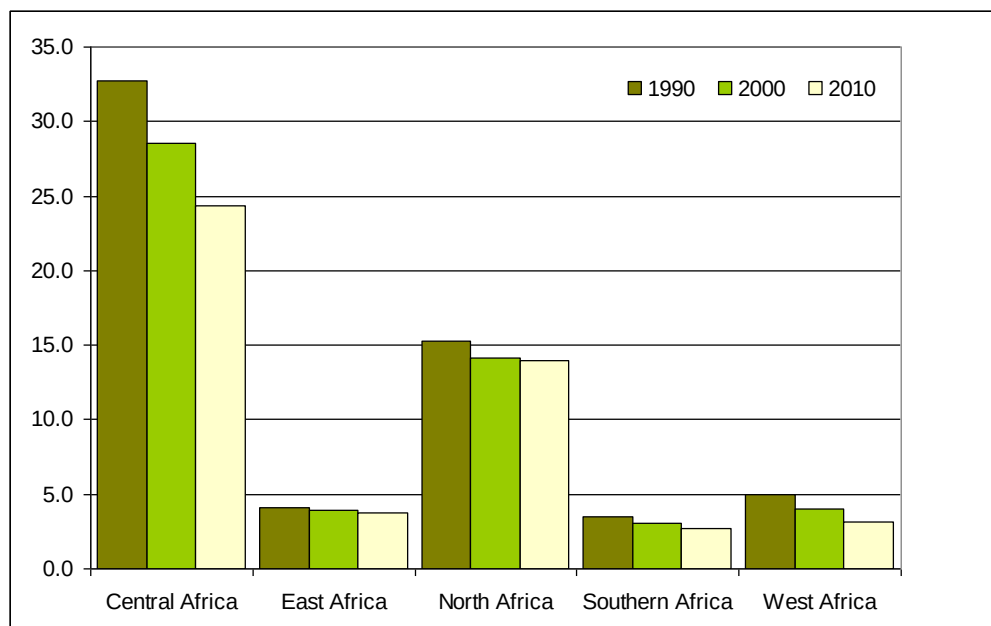


Figure 2: Area of primary forest in Africa, 1990–2010 (million ha)

10. Only about 3 percent of the forest area was designated primarily for protection of soil and water, compared with 8 percent at the global level. Africa's total forest area designated for soil and water protection showed a net loss of 0.9 million hectares in the last decade, while globally this area increased by more than 27 million hectares over the same period.

11. Thirty percent of the forests of the region were designated primarily for the production of wood and non wood forest products. The extent of forests designated for production has declined in Africa over the last 20 years.

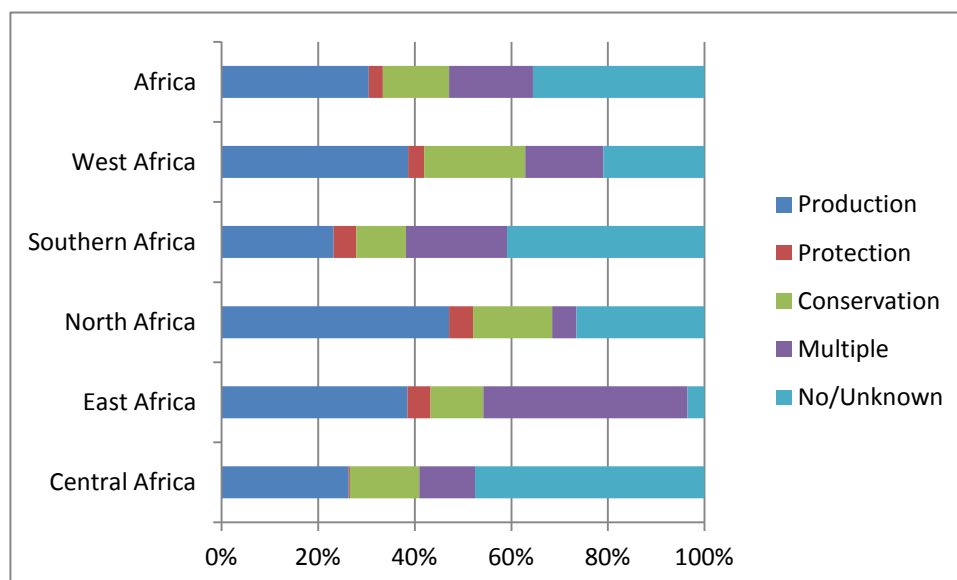


Figure 3: Forest designation in Africa in percentage, 2010

12. Only 10 percent of wood removals in Africa were used as industrial roundwood, while the remaining was used as woodfuel. Africa accounted for 33 percent of global woodfuel removals and only 5 percent of global industrial wood removals. Woodfuel removals increased in line with growing population by 8 million cubic metres annually and despite the decline in the area of forest designated for productive purposes of more than 1 million hectare since 1990. Most of the increases in wood removals are due to

increased production of woodfuel, particularly in Western and Central Africa. A large part of this may have been collected from areas outside forests and some may have come from forests designated for multiple use rather than from forests designated primarily for productive purposes.

13. Almost all the forests in Africa are publicly owned. The area under private ownership declined slightly in the 1990s but increased in the period 2000-2005. However privately owned forests still account for less than 4 percent of the total forest area. Communities and indigenous people owned the majority of private forests in sub-Saharan Africa.

14. The value of wood removals (woodfuel and industrial roundwood) increased in the region from US\$2.6 billion in 1990 to about US\$2.9 billion in 2005. However, Africa's share of the global value of wood removals remained significantly lower than its potential. In 2005, the value of industrial wood removals in the region was estimated at only 11 percent of the global value, while woodfuel removals made up nearly 50 percent of the value of global woodfuel removal. As limited information was available on this variable, it is likely these values are underestimated.

15. Exudates, food and living animals were the most important non-wood forest products (NWFPs) extracted from African forest areas. However, very little information was reported on this variable.

16. More than half a million people were reportedly involved in the primary production of goods in forests in Africa.

17. The area of forest with a management plan increased rapidly over the last ten years with a net increase of more than 4 million hectares annually. The level of human resources in public forest institutions decreased in the period 2000-2005 but increased again between 2005 and 2008. The number of graduates in forestry increased between 2000 and 2005 but has since levelled off. More than 60 percent of the forest area in the region was covered by national forest programmes.

Country reporting capacity, data availability and data quality

18. The response rate from the region was fairly good and 52 country reports were submitted to FRA 2010. Five desk studies (accounting for less than 2 percent of the forest area of the region) were compiled by the FRA secretariat for countries that did not provide any report.

19. During the reporting process, many countries experienced problems in gathering the information requested by FRA due to weak institutional linkages in those cases when public and private institutions with a great deal of data and information on natural resources did not adequately share it. Some countries reported also on inadequate capacities of national institutions involved in natural resources management, to collect, analyze and store accurate information. This, in addition to the limited time and financial resources available for the collection of data and the compilation of the country reports, has been a bottle neck for many national correspondents.

20. Data availability for some of the most important variables of the 17 reporting tables measured as the sum of the area of forest of those countries reporting on a certain variable, in percentage of the total forest area in the region, is reported in Figure 4 below.

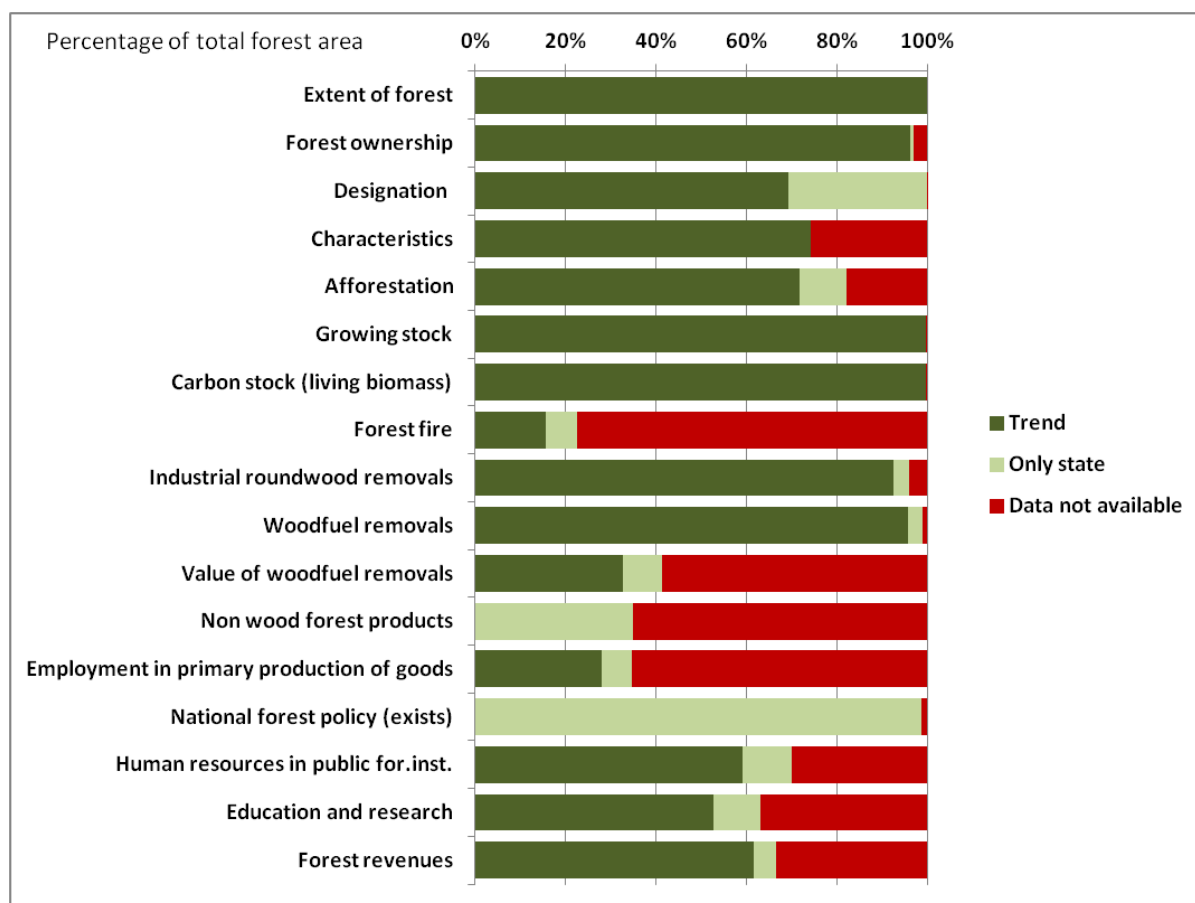


Figure 4 Data availability for Africa

21. Forest area data were available for all the countries, allowing forest area estimates for the four reference years and trend analysis. For the remaining variables data availability both in terms of state for 2010 and trends, was weaker. Growing stock as well as biomass and carbon, are strongly correlated to the forest area and even if the analysis provided fairly good results in terms of estimates on state and trend, the vast majority of countries have only one figure of growing stock and for these countries any changes in growing stock reflect only the change in forest area.

22. Information on forest characteristics, particularly on primary forest, was particularly weak in Central Africa since Cameroon and the Democratic Republic of Congo, representing together 26 percent of the total forest area in the region, did not report on the extent of primary forests, implying an underestimation at regional level and difficulties in the trend analysis of such an important variable. Poor data availability was registered for forest fires and forest disturbances and no trend analysis could be carried out. Reporting was particularly weak in Central Africa where the reporting countries only represented 13 percent of the forest area, while East Africa had better availability of data with half of the countries accounting for 67 percent of the forest area reporting on area of forest affected by fire.

23. The status of the information on socioeconomic variables was weak and data availability was particularly low for the value of wood removals and the level of employment. While availability of information on status and trends of woodfuel was pretty high, only 23 countries in the African region, representing just 32 percent of Africa's forest area, were able to report on the value of woodfuel. Data availability for non wood forest products removals and value was also poor for the whole of Africa with some differences at subregional level. In East and North Africa reporting countries accounted for more than 90 percent of the forest area while in Southern Africa reporting countries accounted for only 5 percent of the forest area. Employment data were available in East and West Africa where reporting countries accounted for more than 60 percent of the forest area, while poor data availability was registered especially in North Africa.

24. It should be taken into account that a significant proportion of wood production (fuelwood, in particular) and processing (e.g. pit-sawing, charcoal production, and collection and trade of NWFPs) took place in the informal sector and has not been adequately evaluated.
25. Data quality analysis showed that only 10 countries, accounting for 15 percent of the forest area of the region, used data from National Forest Inventories (2004 was found average reference year) as a basis for their forest area estimates. Twenty seven countries accounting for more than two thirds of the region's forest area based their estimates on mapping including remote sensing and aerial photos, but the analysis highlighted that information was quite out of date (1996 as average reference year). For those countries representing 20 percent of the remaining forest area, the analysis on data availability highlighted a mixed picture as some of them used a compilation of sub-national inventories to derive national estimates, others used statistics derived from various types of modeling. Some countries, lacking of any basic forest data, relied on expert estimates.
26. Regarding data availability or deriving forest area trends estimates, the analysis highlighted that only one country could rely on consistent data over time from a national forest inventory while 17 percent of the forest area was represented by countries using special studies and modeling. Countries representing 55 percent of the forest area of the region used independent assessments to estimate forest area change over time, with difficulties in comparing different assessment methodologies and definitions. Countries using expert estimates to derive trends, represented almost one third of the forest area and among these, countries that reported no changes at all represented 5 percent of the forest area of the region.

FAO's support to country reporting capacity

27. Country reporting capacities and data availability and quality, remain important issues and thus represent potential areas of improvement for future assessments. The FRA process has been enhancing country reporting capacity through training and feedback on national reports and the organization of regional training workshops. Background documents such as Guidelines, Specifications and FAQ were developed and made available for the National correspondents to help them better understand the process, methodology and definitions.
28. A global training workshop was organized in Rome in 2008 to introduce the countries to the reporting process and discuss together variables and reporting requirements. In addition to this, regional training workshops were also carried out throughout 2008 to review draft country reports and provide further assistance and guidance to countries. More than 60 participants participated to the 3 training workshops organized for the African region. Furthermore, the FRA process increased the collaboration with other forest-related organizations, such as the International Tropical Timber Organization (ITTO), in order to harmonize variables and streamline the reporting, which in turns decreased the countries reporting burden.
29. Despite the direct technical support and guidance provided to countries throughout the reporting process, some of them faced serious difficulties in reporting simply because of lack of basic data.
30. The data analysis highlighted that data availability is still a problem for certain variables such as growing stock and biodiversity and socioeconomic indicators. Regarding data quality, although many countries have recently conducted national forest inventory to improve the information on the state of their forests, data quality is still an issue for the majority of the countries and the absence of reliable trend information is an additional issue of concern.
31. The FRA process does not support countries directly to produce new and better data, but it highlights data gaps and thus generates the needs for better information. To address the issue of data availability and data quality, FAO has developed a programme to support national forest monitoring assessment (NFMA) to provide a basis for national-level analysis and planning, broaden the knowledge base on forestry in a country, and enhance national capacities to monitor land use and trends. Results from efforts over the last ten years are visible in a number of country reports also in the African region. Cameroon and Zambia already completed their NFMA project while The Gambia, Angola and the Democratic Republic of Congo are currently progressing in their NFMAs.
32. As part of the FRA 2010 reporting process, a global remote sensing survey is currently being finalized by FAO to obtain more detailed and comparable information on forest change dynamics at global,

biome and regional levels. The project has achieved significant progress with collecting and processing over 13,000 small samples of Landsat imagery and processing these into draft Land-cover data to make it easier for countries to access and use this data through a website. One of the major features of the project has been the engagement of more than 120 national experts in many countries to review the results through 16 workshops held around the world in the past 2 years. The data is currently being analysed and some of the key results will be released by FAO on forest Land-use changes in late 2011 and on the dynamics of Land cover change in 2012.

FRA: the way forward

33. The Committee on Forestry at its latest session in 2010 recommended FAO to develop a long-term strategy for FRA in order to promote a global forest resources assessment that meets long-term global needs.

34. The strategy, building on lessons learned from past assessments, delineates objectives for a 15 year period and areas of continuous improvement (see Annex).

35. One of the long term objectives of the FRA strategy is to build and strengthen the capacity of countries to improve information essential for sustainable forest management. This requires close collaboration of different units within the Forestry Department but also with other forest related organizations. To promote this, the strategy stresses the importance of strengthening the National correspondent network. Less visible features, such as mobilizing other national stakeholders for the country reporting process and the networking are crucial in addition to the external, visible and formal processes and outputs.

36. The strategy emphasizes the importance of data sharing among different organizations involved in the collection of forest information and the importance of improving communication among different focal points in the countries. FAO has so far contributed substantially to developing common forest-related definitions and intends to continue to do so through the FRA programme, in cooperation with multiple stakeholders, including the Collaborative Partnership on Forests (CPF).

37. The strategy seeks to facilitate national correspondents' work by decreasing the reporting burden through finding a balance between quantity of data collected, their importance, practicality and use.

38. While aiming at an increased intra-departmental collaboration to support countries in producing new and better information, the strategy foresees the use of the best available tools and approaches to improve reporting efficiency and accuracy and the use of remote sensing techniques to support the country reporting process.

39. A robust online reporting system using state-of-the-art technology will be produced and maintained to increase the efficiency of country reporting. The online reporting will also facilitate the collection of the information among different national institutions and organizations as it will be possible to access by multiple users.

40. The FRA strategy puts special emphasis on data accuracy and quality control and aims at improving transparency and traceability of the reports. Because data come from sources ranging from recent national forest inventories to expert opinions, it is often difficult for readers to know and understand the reliability of the data. The strategy recommends that FRA continue to develop methods for data collection that clearly identify the source and enable users to understand the relative level of their confidence. Better questions need to be formulated concerning the type of data sources used to derive important estimates for forest area and growing stock, and the on-line reporting through a guided process of data entry should also help automatically checking accuracy of end results.

41. Integration of remote sensing in the country reporting will be a crucial step in improving reporting capacities in many countries and the strategy emphasizes that FAO should work with countries as needed, to support the use of field and remotely sensed data for international reporting.

42. The strategy also aims at enabling FRA at projecting the future and developing outlooks studies. As most deforestation comes from conversion of forest land to agriculture and as global population grows, pressures for food production areas increases. FRA will describe and project these pressures using other relevant data sources and use this information to explain and predict changes in forest area and quality as

well as use of forests for wood supply, thus complementing historical data with a forward looking view of forest resources.

ANNEX

Preparation of a long-term strategy for the Global Forest Resource Assessment Programme

Supporting Sustainable Forest Management through Global Forest Resources Assessments: long-term strategy 2012-2030

Summary

FAO's global forest resources assessments, made at approximate five to ten year intervals, have evolved over time to respond to changing information needs. The 20th Session of the Committee on Forestry requested FAO to prepare a long-term strategy for the global forest resources assessment process consistent with sustainable funding. This document outlines a draft strategy and explains the objectives, activities and outputs for the period 2012-2030. As part of this strategy, the document identifies: how to use the strengths of the current process; continuous improvements to meet global needs; opportunities to build successful partnerships; improved communication and outreach approaches; and resource needs.

I. Introduction

1. Global forest resources assessments, coordinated by FAO, have been made at approximately five to ten year intervals since FAO was established in 1945.¹ The mandate for these assessments is found in the FAO Constitution, which states that “The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture. In this Constitution, the term ‘agriculture’ and its derivatives include fisheries, marine products, forestry and primary forestry products.” (Article I, Functions of the Organization, paragraph 1).

2. The scope and content of the global assessments have evolved over time to respond to changing information needs. The main concern driving the first FAO-led assessment was well expressed in the first sentence of its report: “The whole world is suffering from shortages of forest products” (FAO, 1948). Studies of timber supply trends dominated the assessments through the 1960s. From the 1970s through the Global Forest Resources Assessment 1990 (FRA 1990), environmental dimensions of forest resources were in focus, in particular the rate of deforestation. FRA 2000 was designed to cover a wider range of forest benefits and functions, but severe information shortages made reporting on key trends difficult. In addition, users and the media still appeared to be primarily interested in forest area and area change² a view repeated in user surveys and evaluations associated with FRA 2005 and 2010.

3. Following an evaluation of FRA 2005, the fifth Expert Meeting on Global Forest Resources Assessments, held in Kotka, Finland in 2006 (Kotka V), recommended that the FRA process should continue to use the sustainable forest management (SFM) concept as a reporting framework and that FRA should cover the commonly agreed seven thematic elements:

- (a) Extent of forest resources;
- (b) Biological diversity;
- (c) Forest health and vitality;

¹ The reporting years have been as follows: 1946-1948, 1953, 1958, 1963, mid-1970s (regional assessments), 1980, 1988, 1990, 1995, 2000, 2005 and 2010.

² Holmgren, P. and R. Persson. 2002.

- (d) Productive functions and forest resources;
- (e) Protective functions of forest resources;
- (f) Socio-economic functions;
- (f) Legal, policy and institutional framework.

4. At its eighteenth session (2007), the FAO Committee on Forestry (COFO) endorsed the above recommendations and asked that FAO continue to collaborate with Members, CPF members, and regional partners, including the UN Economic Commission for Europe (UNECE), UN Forum on Forests and regional SFM criteria and indicator processes, in global forest resources assessments.

5. To promote a Global Forest Resources Assessment that meets long-term global needs, the Committee on Forestry (COFO) in its twentieth session (2010) requested FAO to prepare a long-term strategy for the FRA programme consistent with prospects for sustainable funding. This strategy is written in response to that request.

II. Context

6. Forest resources are under constant pressure and are called upon to produce useful forest products, environmental services, wildlife habitat, recreation and opportunities for livelihoods. Many of these demands are in conflict with one another – for example, the need to convert forested land to agricultural production in some countries due to increasing demand for food and fuel may be a threat to use of natural forests as carbon sinks. Conflicting demands increase as human population continues to grow, income levels and wood and food consumption rates increase at a time when the area of natural forest continues to decline.

7. Into this context comes the Global Forest Resources Assessment (FRA) which seeks to describe forest area, forest change and selected functions of forests. These assessments ultimately seek to support the expanded application of sustainable forest management, the permanent forest estate and support to the forestry sector by providing reliable information about the world's forests. The use of forests to help reduce net greenhouse gas emissions through mechanisms such as REDD+ highlights the importance of understanding land use change in new ways, including net changes in global forest carbon stocks.

8. Exactly how FRA can contribute to increasing the area and quality of sustainably managed forest has not always been clearly stated, yet it is essential if the assessment is to target those users who contribute meeting the challenges of forest management in the 21st century. FRA must also be able to adapt to meet different needs of the diverse global forest data users: governments, non-governmental organizations, the media, intergovernmental agencies, academia, research institutions and the private sector. Understanding and meeting these diverse client needs is an important on-going challenge and an important element in this strategy.

9. During the period of this Strategy (2012-2030) the context of global forests and forestry will likely include the following changes:

- (a) An increase in human population from about 7.1 billion in 2012 to about 8.3 billion in 2030;
- (b) An increase in annual demand for cereals from about 2.2 billion tonnes in 2012 to about 2.7 billion tonnes in 2030;
- (c) An increase in annual demand for industrial roundwood from about 465 million m³ to about 594 million m³ in 2030;
- (d) Over 65 million ha of land now in forest will be cleared for agriculture between 2012 and 2030.

10. The Strategy seeks to define a pathway for the FRA to track and help users understand how forests have and will change in response to the demand for sawnwood.

III. Supporting the FAO Strategic Framework

11. The FAO Strategic Framework (2009-2013) places the FRA under Strategic Objective E : Sustainable management of forests and trees. FRA contributes most directly to Operational Result E1 – *Policy and practice affecting forests and forestry are based on timely and reliable information*. FAO carries out this mandate in full partnership with other international organizations, national institutions, and non-governmental organizations.

12. The FAO Strategy for Forests and Forestry adopted by COFO 2009 notes that “Decision-making across sectors is informed, better coordinated, transparent and participatory, enabling effective action both within and outside the forest sector. Forest-related decisions are based on timely and accurate information, inter-disciplinary approaches and stakeholder participation at all levels.” It also notes that FAO Forestry needs to provide long-term perspectives and leadership in monitoring and assessing trends in forest resources and services, and the production, consumption and trade of forest products.

13. The mission of FAO’s global forest resources assessment programme is to provide the world community with reliable information to describe the world’s forests and how they change over time.

IV. Goals and Objectives and Outputs

14. In support of this mission, the *long-term goals* of the Global Forest Resources Assessment are to:

(a) Assist countries and the world community by providing relevant, timely, realistic, reliable and useful information for use in reviewing policies, promoting multilateral cooperation and taking appropriate investment actions for the sustainable management of forest resources;

(b) Support international cooperation in harmonizing and sharing multi-country forest resource information in common formats;

15. The *immediate objectives* for the Global Forest Resources Assessment (commencing with FRA 2015) will include the following responsibilities to:

(a) Carry out an assessment of forest resources (including information on the goods and services provided by forests) on a global basis every five years;

(b) Estimate the changes in forests and their uses that have taken place since the previous assessment;

(c) Provide information and analysis that helps understand the reasons for and the effects of change, including drivers outside the forest sector;

(d) Produce a study on the trends and outlook for the use of forests for wood supply;

(e) Disseminate results, data bases, and methodologies to interested national and international institutions, the general public, academia, NGOs and the private sector.

16. In turn, these objectives will be met through the following types of activities:

(a) Country reporting process. Compile, analyse and report on world forest resources state and change based on data available at the national level through a network of officially nominated national correspondents;

(b) Remote sensing to support national forest resources assessment and reporting. National reporting that incorporates remote sensing provides added value for countries and the global community – FRA in collaboration with other units in the department will work with countries as needed to support the use of field and remotely sensed data for international reporting;

(c) Harmonization of reporting. Forest-related reporting burdens are substantial and increasing, thus FRA must work with countries and partners to harmonize and where possible streamline reporting mechanisms;

(d) Country capacity building. Build and strengthen the capacity of countries to improve information essential for sustainable forest management in collaboration with other units in the department.

(e) Adapt the methodologies and specific variables to changing needs of member countries and international processes.

(f) Data availability and dissemination. Tailoring data availability, analytical tools and dissemination approaches to the needs of key FRA user groups.

17. Anticipated outputs from this strategy include:

- (a) User-relevance will increase as a result of periodic needs assessments
- (b) Data quality and reliability will be improved
- (c) Data collection and reporting burden will be reduced
- (d) Core, long-term priorities will be defined
- (e) Remote sensing use for country reporting will be enhanced
- (f) Projections of future global forest area and use of forests for wood supply will be produced
- (g) Analytical outputs will be tailored to user needs

V. Building on strengths

18. The assessments that have gone on before have provided a strong base upon which to build. User surveys and evaluations have since 2002 have cited a number of key messages:

(a) **Flagship publication and country ownership.** Given its long history and tradition, it is recognised that the FRA Main Report is a *key flagship* publication of the FAO Forestry Department, a global public good with international appeal. Ownership of *FRA products* (the FRA Main Report, the Key Findings and the Country Reports), the *process* itself through the involvement of National Correspondents and the *data* by using it as input to other international policy processes has been a key to FRA success and must remain so in the future.

(b) **Data process credibility and quality.** A major message over time has been that data credibility and quality should not to be compromised and that there is a delicate balance between FRA data quantity and quality. There is a need to prevent (further) overburdening of the providers of country data and information (National Correspondents) by increasing data quantity at the expense of ensuring data quality. This balance must be an important part of each assessment-specific plan to ensure that data quality is as high as possible and that suggestions for additional data are carefully evaluated to ensure that they do not increase the net reporting burden.

(c) **Country capacity building and the NC network.** Less visible features, such as mobilizing other national stakeholders for the country reporting process and the networking are crucial in addition to the external, visible and formal processes and outputs. As REDD+ monitoring efforts become better defined and implemented it will be crucial for future FRAs to adapt to both data needs and availability for this potentially important process.

(d) **Country dissemination.** The need to actively disseminate information products and data at country level and to different user groups is very important if results are to be used to help make better informed decisions. To maximize the use of results means that continuous effort will be needed to ensure that users can *easily* access, analyse and use elements of the FRA data that are of greatest use to them. Greater interactive and flexible data availability would allow different user groups to use the database in different ways.

(e) **Reporting frequency and geographic focus.** Past experience with differing reporting intervals and geographic focus suggested that future assessments need to be produced with predictable frequency – every five years. It is also clear that continuity for key variables on forest area and change needs to be maintained so that some measure of long-term change can be reasonably assessed. Likewise, a global focus has been consistently sought from reviews and users.

VI. Continuous improvement to meet global needs

19. Producing and reporting global forest resources assessments presents significant challenges, including: international definitions and measurement standards that frequently change, varying levels of national resources for reporting and an ever-growing list of information needs. FAO and its partners seek to implement a long-term strategy that is based on continuous improvement. The strategy foresees use of the best available tools and approaches to improve reporting efficiency and accuracy, making the best use of remote sensing in country reporting and improved data access that is directed to key stakeholders/users of FRA data. This must be done in a way that allows future FRA reporting to be generally as consistent over time as possible to allow users to better understand trends in forest extent, characteristics and uses.

20. As global pressures on forest land increase, the need for high quality FRA data will also increase. This presents the need, and the opportunity, to seek continuous improvement. The long-term strategy will be to seek continuous improvement in the following areas:

(a) **Helping make country reporting of high value to countries above all else.** Reporting to international bodies is often seen as a requirement that must be met with varying levels of local importance. Country ownership of data submitted to FRA has improved dramatically over the years and FAO will continue to work with countries to maximize the utility of these data for country purposes. Identifying high priority data needs that are common country priorities will be crucial for future assessments and will also demonstrate data gaps that need to be filled with new national forest inventories, which are themselves vital to forest planning and management.

(b) **Reduced net reporting burden.** Demands for additional reporting come from many sources, but often end up increasing the workload of national reporting teams. In order to continually improve data quality it will be important to manage the quantity of data collected to ensure practicality, importance and application of the data collected. A robust online reporting system using current technology will be produced and maintained to increase the efficiency of country reporting.

(c) **Understanding and addressing specific client needs.** The FRA process must measure and understand and address specific client needs as they evolve to ensure that the collected data are as usable as possible. This needs to include involvement of diverse users such as the media, general public, private sector, UN conventions related to forests, academia, governments and NGOs. Because users are so diverse it will be important to conduct periodic readership surveys to understand the range of user groups and how future assessments can be made more useful to each.

(d) **Improving online access and usability of FRA data.** Maintain an updated online portal using current technologies is critical to the future ease of data access and use for FRA users. In addition to keeping current with online technologies, the FRA process must measure and understand and address specific client needs as they evolve to ensure that the data are as usable as possible. At the same time, a means of allowing countries that either do not have reliable internet access or who wish to report via spreadsheet or paper forms will be made available to ensure that all countries have a way of reporting effectively.

(e) **Data accuracy/quality control.** The difficulty of collecting data of known quality has been known since 1948³ and each assessment since then has sought to improve data quality. Finding ways to make country reports relevant and usable first at the national level with global reporting as a secondary benefit is an example of how to ensure that those who produce data used by the FRA programme have as much return on time invested as possible from their work. This increases incentives to ensure that data sources are identified and that quality is as high as possible. Integration of remote sensing and country reporting by countries as part of their analysis and reporting processes will be a crucial step in helping improve country reporting for many countries.

(f) **Projecting the future.** Forests clearly provide a wide range of products and services and one of the key reasons the FRA programme was created was to help describe the relationship between forests and wood supply. This is an important purpose in a world where human population continues to increase, demand for agricultural and urban land use increases, wood and paper product demand per capita

³ "All these investigations made valuable additions to our knowledge, but all suffered from certain fundamental difficulties..". FAO World Forest Inventory Report, 1948

is expected to grow and the area of production forest is declining in many countries. Using the FRA data to help project future supplies and describe where this wood is likely to come from is vitally important as is the projection of future forest area, including areas set aside for forest conservation.

(g) **Understanding forest change in the context of pressures on land.** Most deforestation comes from conversion of forest land to agriculture and as global populations grow, pressures for food production areas increase. FRA must describe and project these pressures using other relevant data sources and use this information to explain and predict changes in forest area and quality as well as use of forests for wood supply.

(h) **Identifying relative levels of confidence** in reported values. Because data come from sources ranging from recent national forest inventories to expert opinion it is often difficult for readers to know and understand the reliability of the data. FRA must continue to evolve methods of data collection that clearly identify the source and make this information available to FRA users to enable users to understand the relative level of confidence they should have.

(i) **Facilitating increasing levels of harmonization in forest related definitions.** FAO has contributed substantially to common forest-related definitions and needs to continue to do so through the FRA programme in cooperation with multiple stakeholders, including the Collaborative Partnership on Forests (CPF).

(j) **Thematic studies** can be useful in the analysis of particularly difficult monitoring problems where there is limited quantitative information, no commonly agreed assessment methodology, or insufficient detailed information, and as such can be an important tool for continuous improvement of assessments. This may include analyses that help refine questions and variable selection for future FRAs or to prepare background documents for critically important topics. However, this tool can also become a distraction that diverts resources to problems that cannot be addressed effectively by the FRA programme. Future thematic studies should be conducted when there is a reasonable chance that they will improve assessment methods or approaches, they complement and supplement FRA, and sufficient resources are secured to conduct them.

VII. Partnerships

21. FRA has always been built upon partnership and must continue to be so in the future. Clearly partnership with countries, intergovernmental organizations, national programmes, national correspondents and research and development agencies has been crucial in past FRA success and must remain so. This section deals specifically with partnerships that collaborate on data collection, analysis and presentation as opposed to users of the dataset and analyses. It is expected that partnerships amongst international data collectors/providers will increase as demands for forest related information continue to grow. Future partnership decisions will need to balance the requirements of new potential partners with the mandate and capacity of the FRA staff.

22. Specific actions related to partnerships include:

(a) National forest departments are crucial to the success of the FRA programme as a credible reporting mechanism. FRA will continue to work through a network of National Correspondents to strengthen the utility and quality of reporting for both national forest planning/reporting and international reporting needs. A mark of success for FRA will be increased ownership of the process and the quality of the data by National Correspondents and their governments. This will require significant attention to working with National Correspondents in ways that encourage their contributions, which are often made in addition to their normative work.

(b) Increased labour-saving cooperation with key strategic partner organizations, both global and regional, to reduce the country reporting burden while at the same time improving efficiency, consistency and data quality. For example, working with the International Tropical Timber Organization (ITTO) and the Observatoire des Forêts d'Afrique Centrale (OFAC) toward common data collection approaches will reduce country reporting burdens, increase the efficiency of each of the organizations reporting and allow greater consistency and most likely quality control over reported values.

(c) Continued cooperation with UNECE and Forest Europe on the regular assessment of the state of forests in the pan-European region and FRA.

(d) Maintaining a mutually supportive and professional strategic partnership with the European Commission's Joint Research Centre (JRC) is vital to ensuring a connection to world-class remote sensing expertise with a long-term institutional interest in forest cover mapping for the tropics and Europe.

(e) Internal FAO partnerships. Because forest assessment and monitoring exists as a responsibility in several different FAO units it is critical that this form of partnership also be maintained and strengthened over time. Ensuring that feedback and gaps from FRA analysis is fed to other forest and landuse assessment units within FAO to help identify and prioritize future actions.

(f) Donor partnerships. Extra-budgetary support will remain vital to the success of the FRA programme, therefore close communication and partnership with key donors will ensure that outputs from the assessment are used in donor-funded programmes/projects and will improve funding continuity that is key to implementation of this long-term Strategy. This partnership needs to provide adequate visibility to donor contributions that demonstrates the importance of these contributions.

VIII. Communications and outreach

23. Communications technologies are rapidly evolving and it is essential that FRA communications and outreach keep up in order to improve data access to those with good access to broadband internet services and those who have limited or no internet access. Traditionally, communications has been seen primarily as a one-way flow – the dissemination of FRA outputs to users. Increasing dependence of users on web-accessible information however will continue to increase expectations for up to date information that is tailored to user needs.

24. It is assumed that the trend of less reliance on paper versions of the FRA outputs will continue and as a result, while paper versions of the Main Report and Key Findings will continue to be needed, the primary emphasis will be to prepare online versions that meet future expectations.

25. The long-term communications and outreach strategy focuses on the following key elements:

- (a) Branding;
- (b) Attractive, easy to use web-access to data, including user-selected analyses, graphics and reporting;
- (c) Feedback from users;
- (d) Limited number of tailored online products intended for specific user groups.

26. *Branding.* FRA is widely known among some user groups as a source of global forest information – but it has not always been as well established as the best source for key users, often times for reasons of data quality that have been beyond the control of FAO. Strengthening of the FRA brand is important so that users will readily identify FRA as a reliable source of global forestry information. Credibility is essential to the value of the FRA products and an important part of the Long-Term FRA Strategy will be to strengthen the FRA brand in a way that increases both credibility and visibility as a premier source of global information on forests. This effort needs to recognize the practical limits in resources and capacity available in developing countries to ensure that data collection scope fits with these constraints. Weak data quality damages the FRA brand and reflects poorly on country data sources, therefore strengthening data quality is crucial to continuous improvement of the FRA brand.

27. *Enhanced online access.* The power of the FRA database exists only when the data are accessible and readily usable. The rapid evolution of online tools for display and analysis of complex data sets is expected to continue over the life of this strategy – and it is essential for the FRA programme to utilize modern tools that attract users to the data set. If FRA data are to be sought by an increasingly broader audience, they will need to be presented in a format that is current and intuitive. Over the lifetime of this strategy communications tools will evolve in ways most people cannot now imagine – it will be important for the FRA results to be presented using the best available technologies, while at the same time offering options suited to users that do not have access to these technologies.

28. *Soliciting and using client feedback.* While it is clear that the FRA data have multiple users, it is also clear that the relative extent of use by different groups that use the assessment is not well understood. As a result past assessment planning has not known who the most important users are – even though the categories of users are well known. It will be important for each reporting cycle to produce/update the understanding of who uses the FRA data for what purpose – and also to what effect. This will ensure that future planning is not necessarily dominated by the most vocal or best resourced users, but also provides a voice to other less visible user groups.

29. *Tailored products.* Helping users with access to what they need to know is a relatively easy way to communicate. While the Main Report and Key Findings clearly have a place for a broad range of users, FRA needs to also be able to serve specific needs through brief summaries that are targeted to specific audiences. Communicating online provides many opportunities to ensure that users themselves can easily access information through report formats that they define.

IX. Resources

30. The scope of the global forest resources assessments has increased significantly over the years (e.g. the number of variables has doubled in the last five years alone) at a time when financial resources to conduct the assessment have not kept pace. This strategy assumes that FAO will continue to support and to be the financial foundation for core FRA activities and that this support will continue to grow as the extent and nature of forests and their many values become increasingly threatened. However, reaching the goals/immediate objectives listed in this document, depends, to a large extent, on the willingness of countries and other partners to fund, provide in kind contributions to, and collaborate with the FRA process.

31. This also means there is a need to make the process as efficient as possible, recognizing that meeting all of the interests of all FRA users is most likely beyond reach. Part of the strategic use of available resources will be to manage the level of effort to reduce the country reporting burden and make reporting more streamlined, together with data collection partners. An increased focus on key variables and the willingness to exclude information requests that stretch country reporting and FAO processing capabilities will help improve efficiency – albeit possibly at the cost of reporting gaps.

32. The need for extra budgetary funds will also remain and needs to be a fundraising priority of FAO Forestry. The stability and continuity of high quality data collection and reporting to match the growing demands for information on the world's forests resources, needs stable, adequate and predictable sources of funding.