Chapter 9
Conclusions

FAO has been coordinating global forest resources assessments since 1946. FRA 2005 is the latest and the most comprehensive assessment to date. Information was collected and analysed from 229 countries and territories for three points in time: 1990, 2000 and 2005. Some 40 variables were included, related to the extent, condition, uses and values of forests and other wooded land.

More than 800 people were involved in the FRA 2005 process, including 172 officially nominated national correspondents, their colleagues, an advisory group, international experts, FAO and UNECE staff, consultants and volunteers from around the world. The outcome of this process is better data, a more transparent reporting process and enhanced national capacity in data analysis and reporting.

This section offers general conclusions for FRA 2005 and highlights considerations for future assessments. It does not repeat detailed findings from previous chapters.

PROGRESS TOWARDS SUSTAINABLE FOREST MANAGEMENT

It is clear from the findings of FRA 2005 that there is mixed progress towards sustainable forest management. Using the thematic elements of this management approach as a framework for FRA 2005 has helped broaden the perspective on global forest resources. In addition to providing information on traditional variables such forest area change and deforestation, i.e. the first thematic element of sustainable forest management, FRA 2005 also includes detailed information on key aspects related to biological diversity, forest health and the productive, protective and socio-economic functions of forests, other wooded land and trees outside forests. The result is a much richer review of key trends in forest resources, their functions and benefits. While many trends remain alarming, it is clear that there are also many positive developments regarding forest resources, their management and uses.

When interpreting the findings from FRA 2005, the scale is crucial. At the global level, the world's forest resources appear to be doing fine (Chapter 8, Table 8.2): changes in most variables are relatively small and the large changes indicate more positive than negative trends. However, this picture changes dramatically when the information is broken down by region and subregion (Tables 8.3–8.9 in the same chapter), revealing considerable differences, with alarming trends in several tropical subregions. It is likely that the variations are even greater at national and subnational scales, but it is not the purpose of this report to draw conclusions at these levels.

All regions and subregions display a mix of positive and negative trends, which makes it difficult to say anything definite about the level of progress towards sustainable forest management. The FRA process and this report do not venture into weighting the studied variables, i.e. stating that one trend is more important than another. Nor is an assessment of progress towards sustainable forest management at the country level included. That would be the task of further analyses, for example, as part of national forest programmes or other policy or planning processes. The report does, however, illustrate that conclusions and the focus on key developments shift according to the perspective, for example viewed from the size of the forest estate or from the number of rural poor people. This poses the question of where and how emphases of future efforts to achieve sustainable forest management should be applied, which will hopefully stimulate a healthy debate and further analyses of the performance of the forestry sector.

Alarming trends

The global forest resources assessment process delivers observed trends of key parameters related to forestry and the forest ecosystem. The FRA process does not include scenario development. By contrast, the FAO-led forestry outlook studies, the Millennium Ecosystem Assessment (MEA, 2005) and the *Global environmental outlook 3* (UNEP, 2002) are examples of processes that make good use of the knowledge generated by the FRA process to predict the future. Yet the FRA 2005 findings provide a number of observations that are alarming in the light of aspirations for sustainable forest management:

- Deforestation continues at an alarming rate in several regions and countries and shows no sign of slowing down at the global level.
- The area of primary forest is decreasing by about 6 million hectares each year. Partly due to deforestation, partly due to selective logging and other human activities, which leave visible signs of human impact and thus transform the forest into a modified natural forest in the FRA 2005 classification system.
- In some regions, the area of forest adversely affected by forest fires, insects and diseases is increasing.
- The value of wood removals in increasing, but less than the inflation rate. Being one of the main sources of income for the forest owner, this may have negative impacts on future investments in forest conservation and management.
- The level of employment in forest management and conservation is decreasing in some regions and at the global level.

Although not all of the above trends are universally perceived as negative (a decrease in the value of wood removals may indicate that functions other than wood production are given priority or that production costs have decreased over time), considerable efforts will be needed to address a number of alarming trends in order to progress towards sustainable forest management in all countries and regions. National forest programmes offer a potential vehicle for discussion of issues and agreement on priority actions at the national and subnational level.

Considerations for future assessments

As clearly illustrated in the previous chapter, the assessment of progress towards sustainable forest management depends on the context, the scale and the perspective applied. This should be kept in mind in future assessments.

Efforts should also be made to widely disseminate the results and make use of them in scenario development and outlook studies.

SCOPE AND COVERAGE OF FRA 2005

The scope and coverage of global forest resources assessments have evolved over the past half century, from a timber supply orientation through a strong focus on environmental issues to a broader approach in FRA 2000 (Holmgren and Persson, 2002). FRA 2005 continued this trend by explicitly addressing six of the seven thematic elements of sustainable forest management. Using these elements as the reporting framework for FRA 2005 was an ambitious approach, suggested by the Kotka IV expert consultation (Luhtala and Varjo, 2003) and subsequently endorsed by COFO (FAO, 2003a). However, three and a half years after the Kotka IV meeting, it can be concluded that this reporting framework has been successfully implemented.

A critical first step in the FRA 2005 process was to select and define the global reporting variables. Following a consultative process, including a global consultation with national correspondents to FRA in November 2003 (FAO, 2004a), 15 reporting tables with about 40 variables were defined (FAO, 2004b). The tables and variables were generalized to facilitate reporting from all regions, which by necessity limits the degree of detail and emphasizes the need to consult country-specific classifications

and references for more detailed analyses. At the same time, the reporting tables represented a broader coverage of forest resources parameters than in previous global assessments, including forest designation, forest characteristics, quantity and value of NWFPs, and employment in forestry.

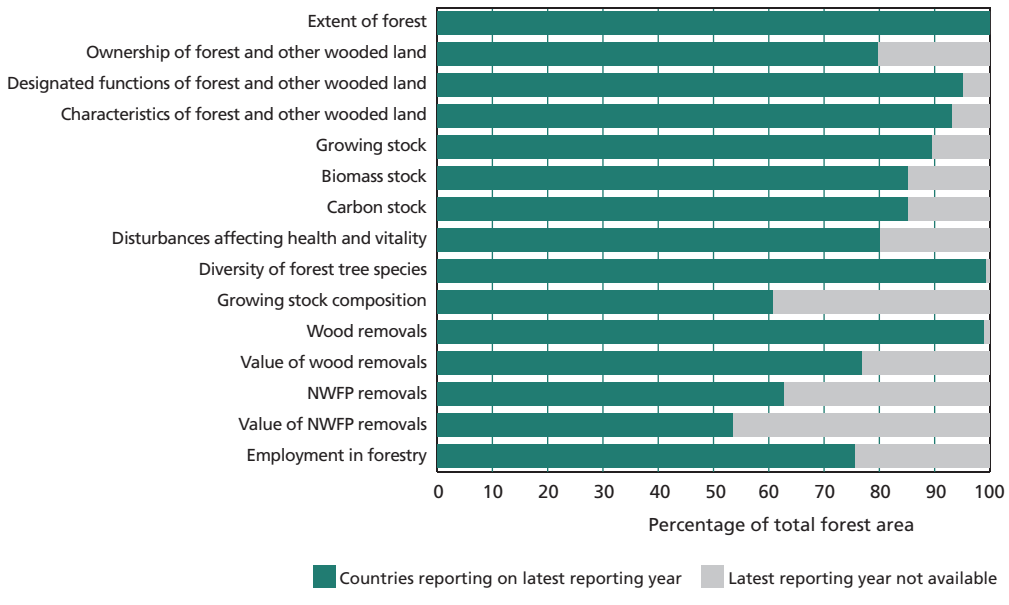
One important consideration in defining the tables was the availability of information at the country level. For example, while more detailed information related to protective functions of forest resources was desirable, it was not considered meaningful to request information if very few countries could respond. On the other hand, certain parameters, including NWFP values and forest fire occurrence, were considered important enough to include even if the response frequency were low. The tables represent a compromise between information availability and the objective of reporting on each of the thematic elements of sustainable forest management. Overall, the response frequency was very good, with nine tables having information for more than 80 percent of the global forest area, and all tables having more than 50 percent coverage (Figure 9.1).

However, the conclusion regarding poor information availability for FRA 2000 is still valid: most developing countries had difficulty reporting because their national monitoring systems are not adequate – neither for international reporting nor for domestic needs. And data quality is an issue, as illustrated in Table 2 in Annex 3, which provides indications of the date of data sources and the methodologies used to estimate key parameters.

To address the issue of data availability and quality, FAO has developed a programme to support national forest assessments (FAO, 2005g), and results from efforts over the last five years are visible in a number of country reports to FRA 2005. Easier access to satellite imagery and some recent national inventories have also resulted in updated information on forest area in many countries. The area-weighted average year for the latest data on forest area is thus 2000 for FRA 2005, compared with 1990 for FRA 2000. Nevertheless, information gaps on most other variables remain wide in many countries, including major forest countries.

The tables containing data on 'designation' and 'characteristics' of forests contained new variables that were not previously defined in FRA. The forest designation table

FIGURE 9.1
Information availability – reporting tables in relation to global forest area



replaced a set of variables that had been difficult to reconcile in FRA 2000, i.e. forests in protected areas, area available for wood supply and area with a forest management plan. The designation table addressed the thematic elements of sustainable forest management more directly and did not allow overlaps among the variables included. The characteristics table introduced the concepts of 'modified natural forest' and 'semi-natural forest' to global reporting and subdivided forest plantations into two groups: protective and productive. This provided a more detailed picture of the degree to which forests have been established or impacted by humans. In both cases, countries were at first slightly resistant to the new concepts, as few of them possessed data directly applicable to this classification system, but, as the reporting process came to a close, both new tables had a response rate of above 90 percent of total forest area (Figure 9.1). Further, a wide range of findings in this report could be based on these tables, which would seem to justify the additions. These cases do, however, illustrate the difficulties of introducing new concepts into global reporting.

The experience of linking to related reporting processes and attempting to harmonize overlapping variables was generally good. However, differences in definitions continued to be an issue and some countries communicated that reporting responsibilities in the countries were neither clear nor synchronized, leading to confusion. It was also obvious that the conscious approach to harmonizing reporting might not generate immediate relief for workloads. On the contrary, the initial effort to harmonize and streamline international reporting may be quite labour intensive. While harmonization of reporting is an obvious goal for all stakeholders, it seems that the investment will take time to generate returns.

As mentioned in Chapter 2, no independent remote sensing survey was carried out for FRA 2005 due to lack of resources. Recalling the experience of FRA 2000, it would have been beneficial to verify findings at the regional level with an independent data source and to obtain more detailed information on the dynamics and underlying causes of changes in land use, forest cover and forest characteristics. However, the key survey results from FRA 2000 are still valid. Looking at the changes in forest area for Africa, one might draw the same conclusion as in FRA 2000 – that country reports probably still overestimate forest area loss. The discrepancy is smaller, but still clearly significant (the country reports in FRA 2005 add up to an annual net loss of 4.4 million hectares for Africa in the 1990s, whereas the FRA 2000 remote sensing survey estimated losses at 2.1 million hectares per year (with a standard error of 0.4 million hectares per year)). Poor information availability for Africa can probably explain some of the difference, but the fact remains that forest area loss based on country reporting for FRA 2005 is probably overestimated for Africa for the 1990s.

Considerations for future assessments

- Changes to classification systems or definitions of the current reporting tables should not be made without very good reasons.
- Efforts to streamline reporting and to establish long-term goals between reporting processes that aim to reduce the reporting burden on countries should be sustained.
- Efforts to support national forest assessments and build capacities of developing countries to generate systematic information and knowledge to feed into policy processes and international reporting should be enhanced.
- Resources should be sought to implement a remote sensing survey for FRA 2010 to complement country reporting, along the lines tested in recent years (FAO, 2003d). Such a remote sensing survey should preferably also address broader land-use monitoring aspects.

FRA 2005 PROCESS

The active, direct involvement of countries was a defining characteristic of FRA 2005. Following the recommendation of the Kotka IV expert consultation (Luhtala and Varjo, 2003), FAO invested considerable resources in establishing a network of national correspondents and organizing global and regional meetings to support the reporting process and build capacity. Countries readily provided the expertise and resources needed to participate, and the network currently counts 172 officially nominated national correspondents. In conclusion, while resource demanding, the network of national correspondents was a critical success factor for FRA 2005.

The decision to document the information from each country report in a working paper proved costly in terms of workload. While guidelines were issued in relevant languages, it turned out to be a daunting task: regional focal points in the FRA team helped national correspondents follow each step in the transformation of national data to the FRA 2005 reporting tables. The efforts involved considerable knowledge-sharing and capacity enhancement on all sides. The proper documentation of all background material, calculations and assumptions will be very valuable for the next global assessment, and is likely to reduce the workload considerably. The turnover of staff in countries and at FAO requires that procedures are in place to secure institutional memory between assessments.

There are many implicit linkages between the FRA process and other international reporting processes, for example the criteria and indicator processes, United Nations conventions, CPF member institutions, Millennium Development Goals monitoring, the MEA and international NGOs. Some of these traditionally make good use of FRA results as baseline information on forest resources. With the current improvements in country participation, quality control and broadened scope, the relevance of FRA information is likely to increase. However, there may be information needs regarding forests that are not currently covered by FRA, but that could be included if linkages with international processes and bodies were made more explicit.

Considerations for future assessments

- The network of FRA national correspondents should be sustained and efforts made to enhance collaboration with other reporting processes at the national level.
- More explicit collaboration with international processes and institutions should be sought in order to streamline reporting efforts. This might include more active sharing of information, joint information requests, or other forms of collaboration. In particular, the planned reporting to MCPFE, ITTO and the Convention on Biological Diversity (CBD) within the next five years may present an opportunity for such closer collaboration in the next FRA.
- Building on the experience of the high workloads involved in the development of country reports, the option of online reporting/updating by countries should be explored.
- The possibility and eventual advantages of including agricultural aspects in FRA, as they relate to forests and forestry, should be considered. This might be done as part of an independent remote sensing survey of forests and land use, or it might be part of regular country reporting.
- It is suggested that 1990 and 2000 be kept as reference years in the next assessment also, in order to deepen the understanding of key forestry trends.

CONCLUDING REMARKS

FRA 2005 is the most comprehensive assessment to date, in terms of both the content and the number of contributors. It tells us that forests cover 30 percent of the land area of planet Earth. They range from boreal and temperate forests to arid woodlands and

tropical moist forests. And from undisturbed primary forests to forests managed and used for a variety of purposes.

FRA 2005 also tells us that deforestation continues at an alarmingly high rate, but that the net loss of forest area is slowing down thanks to forest planting, landscape restoration and natural expansion of forests on abandoned land.

Forests are increasingly being conserved and managed for multiple uses and values, and play a crucial role in climate change mitigation and in the conservation of biodiversity and of soil and water resources. If managed sustainably, forests also contribute significantly to local and national economies and to the well-being of current and future generations.

By providing new information on forest area change – one of the 48 indicators of the Millennium Development Goals – FRA 2005 allows us to gauge the important role of the world's forest resources in meeting the targets set for reducing poverty and ensuring a sustainable global environment.

By also providing data on carbon, biological diversity, forest contributions to national economies and many more variables, this comprehensive assessment aims to support decision-making for policies and programmes in forestry and sustainable development at all levels.

NEXT STEPS

An in-depth evaluation of FRA 2005 will be carried out in early 2006. Readers are encouraged to contribute to this exercise. FAO will continue to work actively with countries to identify and address information gaps to continuously improve knowledge of forests and forestry. Joint planning for the next global assessment (FRA 2010) will begin in 2006, and an expert consultation (Kotka V) is planned for June 2006 to provide inputs to this next assessment.