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### Abbreviations and acronyms

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CFRQ</td>
<td>Collaborative Forest Resources Questionnaire</td>
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<tr>
<td>COFO</td>
<td>Committee on Forestry</td>
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<tr>
<td>COMIFAC/OFAC</td>
<td>Observatory of Central African Forests</td>
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<tr>
<td>FLUDE</td>
<td>Forest Land Use Data Explorer</td>
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<tr>
<td>FRA</td>
<td>Global Forest Resources Assessment</td>
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<tr>
<td>FRIMS</td>
<td>Forest Resources Information Management System</td>
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<tr>
<td>FSC</td>
<td>Forest Stewardship Council certification scheme</td>
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<tr>
<td>GDP</td>
<td>Gross domestic product</td>
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<tr>
<td>ITTO</td>
<td>International Tropical Timber Organization</td>
</tr>
<tr>
<td>MODIS</td>
<td>Moderate Resolution Imaging Spectroradiometer</td>
</tr>
<tr>
<td>PEFC</td>
<td>Programme for the Endorsement of Forest Certification scheme</td>
</tr>
<tr>
<td>RAPA</td>
<td>FAO Regional office for Asia and the Pacific</td>
</tr>
<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
</tr>
</tbody>
</table>
1. Introduction

Ever since its foundation, FAO has regularly collected, analysed, interpreted and disseminated information on the status and trends of the world’s forests resources through the Global Forest Resources Assessment (FRA). The scope and the methodology of the assessments have evolved over time to respond to changing information needs, to increase the level of participation of the countries, as well as to streamline and harmonize definitions and reporting in collaboration with other organizations and international reporting processes.

FRA 2015 is the most recent FAO’s Global Forest Resources Assessment which continued and improved this comprehensive and broader participatory approach.

This document provides a summary of the different steps that led to the completion of FRA 2015, from the designing process to the implementation and the dissemination of the results.
2. FRA 2015 preparation and implementation of the FRA Long-Term Strategy

FRA 2015 is the result of a long consultative process that, guided by key recommendations from the FRA Long-Term Strategy, involved users, national correspondents and experts from all over the world and from a wide variety of technical backgrounds.

The preparation of a Long-Term Strategy for FRA for the period 2012-2030 was requested from the Committee on Forestry (COFO) in its twentieth session in 2010, in order to promote a Global Forest Resources Assessment that meets long-term global needs (http://www.fao.org/3/a-az431e.pdf).

The development process for FRA 2015 began in June 2011 when the FRA Advisory Group in its eleventh meeting met to provide guidance on variables for FRA 2015 and discuss the FRA Long-Term Strategy.

In September 2011, the expert consultation on the FRA Long-term strategy, held in Finland, provided important inputs for the finalization of the strategy and for the FRA 2015 implementation (Expert consultation on “A Long-term Strategy for Global Forest Resources Assessment”: http://www.fao.org/3/a-az431e.pdf).

In October 2011 in Canada, representatives from the International Tropical Timber Organization (ITTO), FOREST EUROPE, United Nations Economic Commission for Europe (UNECE), Montréal Process, FAO, met for a joint workshop of international criteria and indicators process (http://foris.fao.org/static/data/fra2010/ProceedingReport_JointWorkshop_E.pdf). This meeting was followed by a second meeting in February 2012, for a joint action plan in collecting, exchanging and analysing international forest data that originated the Collaborative Forest Resources Questionnaire (CFRQ) (http://foris.fao.org/static/data/fra2010/Sendaireport.pdf).

In March 2012, another important step in the process of finalization of the strategy and preparation for FRA 2015 was the Technical consultation on preparation of FRA 2015, held in Italy (Ispra 1 Report: http://foris.fao.org/static/data/fra2010/Ispralmeetingssummary.pdf). Throughout 2012, six Regional Forestry Commissions concluded the consultation process on the strategy, which was finally endorsed by COFO in its twenty-first session in September 2012.

Key objectives from the strategy set the stage for the FRA 2015 reporting process which is the first assessment to take into account the recommendations from the long-term strategy and to implement its objectives, as better described in the following paragraphs.
2.1 IMPROVED REPORTING, DATA QUALITY AND DATA RELIABILITY

The long-term strategy emphasized on the importance of country reporting as the backbone of global forest resources assessments and on the crucial role of national correspondents. The strategy recommended strengthening the National correspondents’ network in order to increase the rate of response by countries, the visibility of the reporting process and the participation of stakeholders at the national level and thus the availability and the reliability of the data.

To implement this strategic objective, FRA 2015 initiated a capacity building plan with the aim of supporting countries during the reporting process. The plan was developed through the organization of global, regional and national training workshops in accordance with the following component:

- Capacity building for completion of the FRA 2015 reports: to provide technical assistance and guidance to the FRA National Correspondents in order to ensure consistency and high-quality of the national reports;
- Capacity building at national level: to promote the incorporation of remote sensing into the FRA 2015 country reports in selected countries;
- Capacity building to strengthen national networks for the FRA 2015 reporting process: to enhance awareness of the FRA reporting process at national level through the involvement of key stakeholders and the promotion of a support network.

A total of 21 global, regional and national workshops involving more than 500 participants were carried out (Annexes 1 and 2).

The strategy also emphasized on the importance of data quality in terms of quality control and accuracy and recommended improving transparency and traceability of the estimates. Since data sources range from recent national forest inventories to expert opinions, FRA 2015 introduced a tier system to clearly identify data sources by ranking them in reliability classes or Tiers. For most variables countries were asked to assign a Tier class 1, 2 or 3, where Tier 3 indicates the highest level of detail and Tier 1 the lowest.

2.2 REDUCED REPORTING BURDEN

Another key objective of the strategy was to decrease the reporting burden on countries and facilitate the work of the national correspondents, through a better balance between quantity, importance, practicality and use of the information requested as well as through the improvement of data sharing among the organizations involved in the collection of forest information.

Building on lessons learned from FRA 2010 and taking into account recommendations from the various preparatory expert consultations, FRA 2015 focused on variables that were easy to collect and practical to analyze.

The pre-filling of the country reports with information previously submitted to past assessments and with information from external data providers for some of the variables was implemented to facilitate the reporting.
However, the most important step that FRA 2015 undertook towards reducing the reporting burden was the adoption of the Collaborative Forest Resources Questionnaire (CFRQ), in collaboration with the International Tropical Timber Organization (ITTO), FOREST EUROPE, United Nations Economic Commission for Europe (UNECE), the Observatory of Central African Forests (COMIFAC/OFAC) and in cooperation with countries of the Montréal Process. The CFRQ questionnaire contained a subset of the FRA 2015 variables which were in common with at least one of the partner organizations and covered 104 countries representing 88 percent of the world’s forests.

Through the questionnaire, data of common interest among the partner organizations/processes, could be collected once and then shared many times, contributing not only to decrease the reporting burden, but also to achieve a greater consistency in the published results.

2.3 IMPROVED ACCESS TO FRA DATA

The strategy also emphasized the importance of improving access and usability of FRA data and proposed the development of an updated online portal where interactive and flexible tools would allow users to extract and analyze FRA data in many different ways. For this purpose, the Forest Land Use Data Explorer (FLUDE) was developed and is available in the FRA Website. The strategy also outlined the development of online tools to facilitate the work of the countries during the reporting process.

To this aim, FRA 2015 implemented the Forest Resources Information Management System (FRIMS), an online platform that facilitated the reporting process, simplified the data entry and the review process. The FRIMS allowed simultaneous access to the reports by multiple users and also provided automatic checks to highlight errors in the calculations and inconsistencies among the tables, to facilitate the work of the correspondents and their national team of experts. Furthermore a help desk function was activated to assist users and collect their comments during the reporting process (FRIMS-Help-Desk@fao.org).

The online system also proved useful during the review process as more than one reviewer could work at the same time on the same report; comments provided could then be reviewed and optimized by a review editor before being sent back to the countries. The online system was also built to promote the interactive use of FRA 2015 data, allowing users to extract and analyze data in a more interactive and tailored-made way. The online analysis functions in FRIMS were scheduled to be made available to users in September 2015.
3. FRA 2015 Milestones

Once the process of designing and defining the content and scope of FRA 2015 was completed by the end of 2012, the reporting process started in January 2013 with the distribution of the pre-filled country reports and of the CFRQ questionnaires to the countries.

In May 2013, the Global meeting of national correspondents brought together representatives from 96 countries to provide them with guidance and technical assistance for the completion of the country reports. The summary report from the Global meeting in Thailand is provided in Annex 1.

Throughout 2013, a total of 20 regional and national workshops were conducted in the framework of the capacity building plan. The regional workshops represented a unique opportunity for the national correspondents to receive technical assistance for the finalization of the country reports and the CFRQ questionnaires as well as to share experiences of forest related reporting with colleagues from the same region.

The national workshops mainly focused on the strengthening of the national network, on improving the participation of all stakeholders at national level and, for countries that specifically requested this type of support, on the integration of remote sensing into the reporting process.

Remote sensing data were included in FRA 2010 as an independent means of collecting comparable time data on the state of the World’s forests between 1990 and 2005 at the regional, climatic domain and global levels. Thanks to a partnership between FAO, its member countries and the European Commission Joint Research Centre (JRC), new data from an update of the FRA 2010 remote sensing data, were released in March 2014, on the occasion of the International Day of Forests. The updated assessment provided information on the extent of forest land and changes in forest land use for the period 1990-2010.

The deadline for the submission of the complete country reports was in October 2013. The country reports submitted online through the FRIMS could be directly reviewed by the reviewers. Country reports that were submitted in Word format were uploaded in FRIMS in order to be reviewed. Once all the country reports were revised, finalized and data officially endorsed by the National Correspondents, the data could be extracted from FRIMS and moved to an excel database to be analyzed.

The analysis of the collected data started in July 2014 and continued with the drafting of the three main FRA 2015 publications: the Desk reference, the Synthesis document and the Special volume on FRA 2015 of the Forest Ecology and Management scientific journal.

The official release of the FRA 2015 results and publications was scheduled for September 2015, on the occasion of the XIV World Forestry Congress in Durban.

The main steps that brought to the completion of FRA 2015 are summarized in the table below.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>Comment/output</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRA and CFRQ 2015 questionnaires release</td>
<td>January 2013</td>
<td>Pre-filled questionnaires and reference documents for FRA 2015 sent out to all National Correspondents and CFRQ partners</td>
</tr>
<tr>
<td>Global meeting</td>
<td>6-10 May 2013</td>
<td>To assist in the compilation of consistent FRA and CFRQ questionnaires and strengthen national networks</td>
</tr>
<tr>
<td>First deadline for completed country reports</td>
<td>1 July 2013</td>
<td>Countries were requested to submit their reports</td>
</tr>
<tr>
<td>Regional/national workshops</td>
<td>July - November 2013</td>
<td>To assist in the compilation of consistent FRA and CFRQ questionnaires, strengthen national networks, integrate the use of remote sensing in the reporting process</td>
</tr>
<tr>
<td>Deadline for completion of final reports</td>
<td>October 2013</td>
<td>Countries were requested to submit reviewed and completed country reports</td>
</tr>
<tr>
<td>FRA Remote sensing update release</td>
<td>March 2014</td>
<td>An update of the FRA 2010 Remote sensing survey provided new data for the period 1990-2010</td>
</tr>
<tr>
<td>Analysis of preliminary results</td>
<td>July - December 2014</td>
<td>Analysis of collected data and drafting of FRA publications</td>
</tr>
<tr>
<td>Preliminary results discussed and reviewed by FRA Advisory Group and CFRQ partners</td>
<td>September 2014</td>
<td>Preliminary results as well as draft FRA 2015 publications discussed in Salt Lake City by AG members and CFRQ partners</td>
</tr>
<tr>
<td>Preparation of FRA 2015 publications</td>
<td>October 2014 - August 2015</td>
<td>Editing, formatting, translating and printing of the FRA 2015 publications for dissemination in September 2015</td>
</tr>
<tr>
<td>Launch of FRA 2015 publication at the World Forestry Congress (Durban, South Africa)</td>
<td>September 2015</td>
<td>Release of the FRA 2015 results and publications</td>
</tr>
</tbody>
</table>
4. The country reporting process

The wealth of information contained in the FRA 2015 assessment was collected through standardized country reports submitted by a network of 168 officially nominated National correspondents. In total more than 680 contributors were involved in the reporting process, including the national correspondents and their national teams. The complete list of national correspondents, alternates and contributors is found in the FRA Website (http://www.fao.org/forest-resources-assessment/background/national-correspondents/en/).

A total of 155 Country Reports covering 98.8 percent of the total forest area were submitted, while 79 desk studies covering 1.2% of the total forest area were compiled by the FRA secretariat for countries that did not nominate National Correspondents or did not submit any report. The list of countries for which desk studies have been prepared is provided in Annex 3.

To ensure transparency and traceability of the estimates, the reporting format required countries to provide the full reference for original data sources used, the description of national definitions and categories and the explanation of the methodology used for the estimates, as well as indication of the reliability of the estimates (tiers). The reporting methodology is explained in detail in the document Guide for Country Reporting for FRA 2015 (http://www.fao.org/3/a-au190e.pdf).

Each country report was organized around 21 key questions grouped into eight topical categories: forest area and forest characteristics, production, protective functions and ecosystems services, biodiversity/conservation, disturbance, measuring progress toward sustainable forest management, economics/livelihoods and looking forward. A total of 117 variables were included, most of which required estimates for the years 1990, 2000, 2005, 2010 and 2015. A list of all the FRA 2015 variables is provided in Annex 5 while the definitions of each variable can be found in the document FRA 2015 Terms and Definitions (http://www.fao.org/docrep/017/ap862e/ap862e00.pdf).

In order to reduce reporting burden and facilitate the work of the National Correspondents, reports were prefilled with information previously submitted to FRA 2010. Countries were requested either to confirm the pre-filled information or to provide updates whenever new and better data was available and also add estimates for 2015. The country reports were also pre-filled with information from external data providers, notably FAOSTAT for the wood removals, the Forest Stewardship Council certification scheme (FSC-certification) and the Programme for the Endorsement of Forest Certification scheme (PEFC-certification) for the area of forest under international forest certification, and UNSTAT for the contribution of forestry to Gross domestic product (GDP). Finally, Moderate Resolution Imaging Spectroradiometer (MODIS) derived data were used to pre-fill information on forest fires and on the reduction of canopy cover. Countries were asked either to validate these data or to update with better national data if available.

The pre-filled country reports were made available to the national correspondents both online in the FRIMS and in Word version so that they could choose either way of reporting.
The following background documents were prepared in order to facilitate the country reporting and improve the understanding on how to interpret the definitions, categories and reporting requirements of FRA 2015:

1. **The Guide to reporting:** explaining the methodology to be applied when compiling the reports in order to ensure complete, consistent and transparent reports where all reported figures can be traced back to the original data and data source. The guide also contains, frequently asked questions as well as reference information on the IPCC guidelines and other helpful material (http://www.fao.org/3/a-au190e.pdf).

2. **The Terms and Definitions:** containing all the definitions and explanatory notes for all the variables to be reported on (http://www.fao.org/docrep/017/ap862e/ap862e00.pdf).

These documents, available in English, French and Spanish, were distributed to the National correspondents and posted on the FRA website.

The complete set of data by country, variables and reference year is provided in the FRA desk reference (http://www.fao.org/3/a-i4808e.pdf).
5. The review process

Once received, the country reports underwent a detailed review to check the correct application of the reporting methodology and its completeness in all steps; identification, selection and documentation of data sources, adjustment, estimation, forecasting and reclassification into FRA 2015 categories. All country reports, including those that were compiled in the Word format, were uploaded in FRIMS and an automatic message informed reviewers when a report was ready to start with a revision cycle. Around 30 experts among FAO staff, CFRQ partners and other international experts, through the online platform FRIMS, carefully reviewed the submitted reports, providing comments, suggestions and technical assistance for their finalization.

National correspondents and reviewers could benefit from a special function in FRIMS built to automatically check and highlight errors in the calculations and inconsistencies among the tables (total not matching, unit errors, etc.). Furthermore, the check function could also automatically calculate some selected ratios (e.g., growing stock per hectare, ratio removals, total growing stock, carbon/biomass) that were compared with a predefined range of ratios to check the reasonability of the reported data.

The review process was completed in July 2014, when countries were requested to complete any internal review or validation of the data before the final clearance of the reports.
6. The analysis

In July 2014, when the vast majority of the country reports were finalized, a preliminary analysis of the collected data was conducted. To this aim the information contained in the country reports was extracted from FRIMS and stored in an excel database that was made available to FAO staff, CFRQ partners and other forest experts involved in the analysis of the results.

The primary analytical categories used in the analysis were:

1. **Global**: as this implies, the global analysis generally used all of the reported values – with a few exceptions. Because of missing values, list-wise deletions were made for the calculation of the trends for incomplete time series;

2. **Sub-regional**: countries were grouped into 12 sub-regions for finer-scale global analyses;

3. **Climatic domains**: because FRA is not spatially explicit, climatic domains at the national scale were defined by the dominant climatic domain per country. Iremonger and Gerrand (2011) (Global Ecological Zones for FAO Forest Reporting: 2010 Update) describe the following domains as aggregations of ecological zones: Tropical, Sub-tropical, Temperate, Boreal and Polar. For the purposes of FRA 2015 the Polar zone was dropped as forest area is de minimis and at the country/territory scale is restricted to Greenland and the Svalbard and Jan Mayen Islands. Because of the lack of spatial data in the FRA the climatic domains are not a precise means in absolute terms, but they provided a useful approach of discriminating and understanding where forest area change occurred;

4. **Income categories**: the per capita income of national economies was used to evaluate possible relationships with FRA 2015 indicators. The income categories, as defined by the World Bank (http://data.worldbank.org/about/country-and-lending-groups), provided a reasonable measure of how forest change occurs across income groups.

The list of countries by the analytical categories is provided in Annex 4.

Status and trends were calculated for all the variables within the analytical categories. For the trend analysis only complete time series were considered and countries displaying missing values for one or more of the reference years were excluded from the analysis. Missing values were not estimated.

7. Publications and dissemination of the results

The FRA Long-Term Strategy also formulated recommendations concerning the publications and dissemination of the results. By putting special emphasis on the communication and outreach, the strategy highlighted the importance of improving data access and communication, to keep up with rapidly evolving communications technologies and to develop tailored products able to serve specific users’ needs.

The Expert Consultation on the FRA Long-Term Strategy, held in September 2011, and the FRA 2105 technical meeting, held in March 2012, endorsed the recommendations from the Long-Term Strategy and, as part of the preparatory process for FRA 2015, encouraged the undertaking of the FRA users and potential users Survey.

The recommendations from the FRA 2015 Long-Term Strategy, the inputs from the consultation processes and the feedbacks from the FRA survey constituted the basis to develop the FRA 2015 Communication Strategy.

Building on the analysis of challenges and opportunities, the FRA 2015 Communication Strategy delineated main strategic directions for FRA 2015 related to the format, content and promotion of FRA products.

The implementation of the Communication Strategy proved to be crucial for positioning FRA 2015 as the world’s definitive assessment of global forests and forestry, able to provide the most current and comprehensive assessment of the world’s forests resources.

Main challenges for FRA 2015, identified in the Communication Strategy, were data quality and data accessibility, while main opportunities were the global scope of the assessment together with a strong and consolidated partnership with other international organizations.

Based on the analysis of challenges and opportunities, the Strategy delineated the following strategic directions:

- Enhance online accessibility and visibility of FRA 2015: FRA publications supported by online tools and technologies to facilitate research and analysis for each user. Special emphasis given to selected topics (sustainable forest management, remote sensing, future projections);
- Increase the understanding of data quality by clearly identifying data sources and ranking them in reliability classes (tiers);
- Optimize opportunities to promote FRA 2015 through the network of partnerships.
The Communication Strategy envisioned FRA 2015 as a web resource, supported by printed documents. To this aim three printed publications are being produced:

1. The FRA 2015 Synthesis Document containing key findings from the analysis of the FRA 2015 data, by topics;
2. The FRA 2015 Desk Reference containing 51 global tables, with data by country and by variables, organized in 21 main questions;
3. The Special Volume on FRA 2015 of the Journal of Forest Ecology and Management, with contributions from more than 60 scientists and forest experts from all over the world, containing in-depth analysis based on FRA 2015 data.

The three publications were scheduled to be released in September 2015 on the occasion of the XIV World Forestry Congress in Durban, South Africa.
ANNEX 1

Summary report of the Global Meeting in preparation for FRA 2015 and the Collaborative Forest Resources Questionnaire Reporting (Chiang Mai, Thailand, 6-10 May 2013)

The Global Meeting in Preparation for FRA 2015 and the Collaborative Forest Resources Questionnaire Reporting took place at the Centara Duangtawan Hotel in Chiang Mai, Thailand on 6-10 May 2013. It was jointly organized with the Royal Forest Department of Thailand and FAO. More than 120 participants, among which National Correspondents to FRA 2015 from 96 countries, and representatives of partner organizations, FAO Headquarters (HQ) and FAO Regional office for Asia and the Pacific (RAPA) attended the event.

The programme included plenary presentations and small group sessions organized according to languages, plus a computer room for interactive work. An open knowledge fair and small group sessions allowed participants to clarify any issues related to the FRA 2015 reporting.

Key outcomes:

- All National Correspondents were informed about the FRA 2015 country reporting process and the CFRQ working modalities;
- All aspects of FRA 2015 were clarified and country reporting capacity was improved;
- National Correspondents are familiar with the use and functionalities of the FRIMS;
- National Correspondents were informed about the FRA 2015 remote sensing activities;
- National Correspondents are informed about the Forest Futures study and scenario formulation is improved;
- National Correspondents are informed about the national capacity building plan activities and benefits derived from its implementation;
- Improved plan for the analysis and publications of FRA 2015 results;
- Networking and exchange of experiences among national experts in forest monitoring assessment and reporting was fostered.
# ANNEX 2

## List of capacity building workshops

### FRA 2015 Regional and Sub-Regional Capacity Building Workshops

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Venue</th>
<th>Date</th>
<th>Countries</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional FRA 2015 workshop for African countries</td>
<td>Kenya, Nairobi</td>
<td>3-4 Sep. 2013</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>Sub Regional FRA 2015 workshop for Southeast, East Asian and main Pacific island countries</td>
<td>Japan, Kyoto</td>
<td>9-13 Sep. 2013</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Sub Regional FRA 2015 workshop for some western Asian countries - with RS component</td>
<td>India, Dehradun</td>
<td>19-23 Aug. 2013</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Regional FRA 2015 workshop for Latin American and Caribbean countries</td>
<td>Mexico, Ciudad de Mexico</td>
<td>2-4 Oct. 2013</td>
<td>19</td>
<td>32</td>
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</table>

### FRA 2015 Capacity Building Workshops for National Networking

<table>
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<tr>
<th>#</th>
<th>Title</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process</td>
<td>Uganda, Kampala</td>
<td>20-21 March 2013</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>Joint data collection and capacity building workshop: ITTO, OFAC, FRA</td>
<td>DRC, Kinshasa</td>
<td>12-13 March 2013</td>
<td>Around 20</td>
</tr>
<tr>
<td>3</td>
<td>Joint data collection and capacity building workshop: ITTO, OFAC, FRA</td>
<td>Gabon, Libreville</td>
<td>4-5 April 2013</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process</td>
<td>Paraguay, Asunción</td>
<td>9-10 April 2013</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process</td>
<td>Laos, Vientiane</td>
<td>2-3 May 2013</td>
<td>41</td>
</tr>
<tr>
<td>6</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process - with RS component</td>
<td>Tanzania, Dar es Salaam</td>
<td>13-14 June 2013</td>
<td>NA</td>
</tr>
<tr>
<td>7</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process - with RS component</td>
<td>Zambia, Lusaka</td>
<td>17-18 June 2013</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process</td>
<td>South Sudan, Juba</td>
<td>20 Aug. 2013</td>
<td>45</td>
</tr>
<tr>
<td>9</td>
<td>Capacity building to strengthen national networks for the FRA 2015 reporting process</td>
<td>Sudan</td>
<td>21-22 August 2013</td>
<td>6</td>
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</tbody>
</table>
## Capacity Building Workshop for integration of Remote Sensing data in FRA 2015

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FRA 2015 capacity building - Integration of remote sensing into FRA 2015 Country Report</td>
<td>Uganda, Kampala</td>
<td>18-22 February 2013</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>FRA 2015 capacity building - Integration of remote sensing into FRA 2015 Country Report</td>
<td>Ecuador, Quito</td>
<td>11-15 March 2013</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>FRA 2015 capacity building - Integration of remote sensing into FRA 2015 Country Report</td>
<td>Lao People’s Democratic Republic, Vientiane</td>
<td>8-12 April 2013</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>FRA 2015 capacity building - Integration of remote sensing into FRA 2015 Country Report</td>
<td>Mexico, Guadalajara</td>
<td>15-19 April 2013</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>FRA 2015 capacity building - Integration of remote sensing into FRA 2015 Country Report</td>
<td>South Sudan, Juba</td>
<td>12-19 August 2013</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Sub-Regional, 5 participating countries</td>
<td>India, Dehra Dun</td>
<td>17-25 August 2013</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>TOT</strong></td>
<td></td>
<td></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>
ANNEX 3

List of desk studies

Afghanistan
Albania
American Samoa
Andorra
Anguilla
Antigua and Barbuda
Aruba
Azerbaijan
Bahamas
Bahrain
Belize
Bermuda
Bosnia and Herzegovina
British Virgin Islands
Brunei Darussalam
Cayman Islands
Comoros
Côte d’Ivoire
Dem People’s Rep of Korea
Djibouti
Dominica
Eritrea
Falkland Islands (Malvinas)
Faroe Islands
French Polynesia
Gibraltar
Greece
Greenland
Grenada
Guam
Guernsey
Guinea-Bissau
Iraq
Isle of Man
Jersey
Jordan
Kazakhstan
Kiribati
Kuwait
Libya

Liechtenstein
Luxembourg
Maldives
Malta
Marshall Islands
Mayotte
Micronesia (Federated States of)
Moldova, Republic of
Monaco
Montserrat
Nauru
Netherlands Antilles
New Caledonia
Niue
Norfolk Island
Northern Mariana Islands
Pakistan
Pitcairn
Qatar
Saint Barthelemy
Saint Helena
Saint Vincent and the Grenadines
Samoa
San Marino
Saudi Arabia
Solomon Islands
Syrian Arab Republic
The former Yugoslav Republic of Macedonia
Timor-Leste
Tokelau
Turkmenistan
Turks and Caicos Islands
Tuvalu
United Arab Emirates
Vanuatu
Vatican City
West Bank
Western Sahara
Yemen
ANNEX 4
Definitions of categories and country grouping by category

REGIONS AND SUB-REGIONS
Grouping by countries

Africa
Eastern and Southern Africa:
Angola
Botswana
Comoros
Djibouti
Eritrea
Ethiopia
Kenya
Lesotho
Madagascar
Mozambique
Mauritius
Malawi
Mayotte
Namibia
Réunion
Somalia
Swaziland
Seychelles
United Republic of Tanzania
Uganda
South Africa
Zambia
Zimbabwe

Northern Africa:
Algeria
Egypt
Libya
Mauritania
Morocco
South Sudan
Sudan
Tunisia
Western Sahara

Western and Central Africa:
Benin
Burkina Faso

Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Congo
Côte d’Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Niger
Nigeria
Rwanda
Saint Helena
Sao Tome and Principe
Senegal
Sierra Leone
Togo

Asia
East Asia:
China
Dem People’s Rep of Korea
Japan
Mongolia
Republic of Korea

South and South East Asia:
Bangladesh
Bhutan
Brunei Darussalam
Cambodia
India
Indonesia
Lao People’s Democratic Republic
Malaysia
Maldives  France
Myanmar  Germany
Nepal  Gibraltar
Pakistan  Greece
Philippines  Guernsey
Singapore  Hungary
Sri Lanka  Iceland
Thailand  Ireland
Timor-Leste  Isle of Man
Viet Nam  Italy

**Western and Central Asia:**
Afghanistan  Latvia
Armenia  Liechtenstein
Azerbaijan  Lithuania
Bahrain  Luxembourg
Cyprus  Malta
Georgia  Moldova, Republic of
Iran (Islamic Republic of)  Monaco
Iraq  Montenegro
Israel  Netherlands
Jordan  Norway
Kazakhstan  Poland
Kuwait  Portugal
Kyrgyzstan  Romania
Lebanon  Russian Federation
Oman  San Marino
Qatar  Serbia
Saudi Arabia  Slovakia
Syrian Arab Republic  Slovenia
Tajikistan  Spain
Turkey  Svalbard and Jan Mayen
Turkmenistan  Sweden
United Arab Emirates  Switzerland
Uzbekistan  The former Yugoslav Republic of Macedonia
West Bank  U.K. of Great Britain and Northern Ireland
Yemen  Ukraine

**Europe**
Albania  Vatican City
Andorra  North and Central America
Austria  Caribbean:
Belarus  Anguilla
Belgium  Antigua and Barbuda
Bulgaria  Aruba
Croatia  Bahamas
Czech Republic  Barbados
Denmark  Bermuda
Estonia  British Virgin Islands
Faroe Islands  Cayman Islands
Finland  Cuba

**North and Central America**
Caribbean:
Anguilla
Antigua and Barbuda
Aruba
Bahamas
Barbados
Bermuda
British Virgin Islands
Cayman Islands
Cuba
Dominica
Dominican Republic
Grenada
Guadeloupe
Haiti
Jamaica
Martinique
Montserrat
Netherlands Antilles
Puerto Rico
Saint Barthelemy
Saint Kitts and Nevis
Saint Lucia
Saint Martin
Saint Vincent and the Grenadines
Trinidad and Tobago
Turks and Caicos Islands
United States Virgin Islands

Central America:
Belize
Costa Rica
El Salvador
Guatemala
Honduras
Nicaragua
Panama

North America:
Canada
Greenland
Mexico
Saint Pierre and Miquelon
United States of America

Oceania
American Samoa
Australia
Cook Islands
Fiji
French Polynesia
Guam
Kiribati
Marshall Islands
Micronesia (Federated States of)
Nauru
New Caledonia
New Zealand
Niue
Norfolk Island
Northern Mariana Islands
Palau
Papua New Guinea
Pitcairn
Samoa
Solomon Islands
Tokelau
Tonga
Tuvalu
Vanuatu
Wallis and Futuna

South America
Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
Falkland Islands (Malvinas)
French Guiana
Guyana
Paraguay
Peru
Suriname
Uruguay
Venezuela

ECOLOGICAL DOMAINS
Grouping by countries

BOREAL:
Canada
Faroe Islands
Finland
Iceland
Norway
Russian Federation
Sweden

TEMperate:
Andorra
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Chile
China
Croatia
Czech Republic
Dem People’s Rep of Korea
Denmark
Estonia
Falkland Islands (Malvinas)
France
Germany  
Guernsey  
Hungary  
Ireland  
Isle of Man  
Jersey  
Kazakhstan  
Kyrgyzstan  
Latvia  
Liechtenstein  
Lithuania  
Luxembourg  
Moldova, Republic of  
Mongolia  
Netherlands  
New Zealand  
Poland  
Republic of Korea  
Romania  
Saint Pierre and Miquelon  
Serbia  
Slovakia  
Slovenia  
Switzerland  
Tajikistan  
The former Yugoslav Republic of Macedonia  
Turkmenistan  
U.K. of Great Britain and Northern Ireland  
Ukraine  
United States of America  
Uzbekistan  

**TROPICAL:**

Algeria  
American Samoa  
Angola  
Anguilla  
Antigua and Barbuda  
Aruba  
Bahamas  
Bangladesh  
Barbados  
Belize  
Benin  
Bermuda  
Bhutan  
Bolivia  
Botswana  
Brazil  
British Virgin Islands  
Brunei Darussalam  
Burkina Faso  
Burundi  
Cambodia  
Cameroon  
Cape Verde  
Cayman Islands  
Central African Republic  
Chad  
Colombia  
Comoros  
Congo  
Cook Islands  
Costa Rica  
Côte d’Ivoire  
Cuba  
Democratic Republic of the Congo  
Djibouti  
Dominica  
Dominican Republic  

**SUBTROPICAL:**

Afghanistan  
Albania  
Argentina  
Armenia  
Australia  
Bahrain  
Cyprus  
Georgia  
Gibraltar  
Greece  
Iran (Islamic Republic of)  
Iraq  
Israel  
Italy  
Japan  
Jordan  
Kuwait  
Lebanon  
Lesotho  
Malta  
Mexico
Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, French Guiana, French Polynesia, Gabon, Gambia, Ghana, Grenada, Guadeloupe, Guam, Guadeloupe, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Jamaica, Kenya, Kiribati, Lao People’s Democratic Republic, Liberia, Libya, Madagascar, Malawi, Malaysia, Maldives, Mali, Marshall Islands, Martinique, Mauritania, Mauritius, Mayotte, Micronesia (Federated States of), Montserrat, Mozambique, Myanmar, Namibia, Nauru, Netherlands Antilles, New Caledonia, Nicaragua, Niger, Nigeria, Niue, Northern Mariana Islands, Oman, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Pitcairn, Puerto Rico, Réunion, Rwanda, Saint Barthelemy, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Vincent and the Grenadines, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, South Sudan, Sudan, Suriname, Swaziland, Thailand, Timor-Leste, Togo, Tokelau, Tonga, Trinidad and Tobago, Turks and Caicos Islands, Tuvalu, Uganda, United Arab Emirates, United Republic of Tanzania, United States Virgin Islands, Uruguay, Vanuatu, Venezuela, Viet Nam, Wallis and Futuna, Western Sahara, Yemen, Zambia, Zimbabwe.
**Definitions**


### FAO Global Ecological Zoning framework for 2010

<table>
<thead>
<tr>
<th>EZ Level 1 - Domain</th>
<th>Name</th>
<th>Criteria (Equivalent to Köppen-Trewartha Climatic groups)</th>
<th>EZ Level 2 - Global Ecological Zone</th>
<th>Code</th>
<th>Criteria (Reflecting dominant zonal vegetation)</th>
<th>Code</th>
<th>Criteria (Approximate equivalent of Köppen-Trewartha Climatic types, in combination with vegetation physiognomy and one orographic zone within each domain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical</td>
<td>All months without frost: in marine areas over 18°C</td>
<td>Tropical rain forest</td>
<td>TAr</td>
<td>Wet: 0 - 3 months dry(^a). When dry period, during winter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical moist forest</td>
<td>TAw</td>
<td>Wet/dry: 3-5 months dry, during winter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical dry forest</td>
<td>TAwb</td>
<td>Dry/wet: 5-8 months dry, during winter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical shrubland</td>
<td>TBSh</td>
<td>Semi-Arid: Evaporation &gt; Precipitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical desert</td>
<td>TBWh</td>
<td>Arid: All months dry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tropical mountain systems</td>
<td>TM</td>
<td>Approximate &gt; 1000 m altitude (local variations)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtropical</td>
<td>Eight months or more over 10°C</td>
<td>Subtropical humid forest</td>
<td>SCf</td>
<td>Humid: No dry season</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtropical dry forest</td>
<td>SCs</td>
<td>Seasonally Dry: Winter rains, dry summer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtropical steppe</td>
<td>SBSh</td>
<td>Semi-Arid: Evaporation &gt; Precipitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtropical desert</td>
<td>SBWh</td>
<td>Arid: All months dry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtropical mountain systems</td>
<td>SM</td>
<td>Approximate &gt; 800-1000 m altitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperate</td>
<td>Four to eight months over 10°C</td>
<td>Temperate oceanic forest</td>
<td>TeDo</td>
<td>Oceanic climate: coldest month over 0°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temperate continental forest</td>
<td>TeDc</td>
<td>Continental climate: coldest month under 0°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temperate steppe</td>
<td>TeBSk</td>
<td>Semi-Arid: Evaporation &gt; Precipitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temperate desert</td>
<td>TeBWk</td>
<td>Arid: All months dry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temperate mountain systems</td>
<td>TeM</td>
<td>Approximate &gt; 800 m altitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boreal</td>
<td>Up to 3 months over 10°C</td>
<td>Boreal coniferous forest</td>
<td>Ba</td>
<td>Vegetation physiognomy: coniferous dense forest dominant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Boreal tundra woodland</td>
<td>Bb</td>
<td>Vegetation physiognomy: woodland and sparse forest dominant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Boreal mountain systems</td>
<td>BM</td>
<td>Approximate &gt; 600 m altitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polar</td>
<td>All months below 10°C</td>
<td>Polar</td>
<td>P</td>
<td>Same as domain level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Zonal vegetation: resulting from the variation in environmental, i.e. climatic, conditions in a north-south direction.

\(^b\) A dry month is defined as the month in which the total of precipitation P expressed in millimeters is equal to or less than twice the mean Temperature in degrees Centigrade.
### INCOME CATEGORIES

#### Definitions
The income categories adopted in the FRA 2015 analysis were defined by the World Bank ([http://data.worldbank.org/about/country-and-lending-groups](http://data.worldbank.org/about/country-and-lending-groups)) in accordance with the following thresholds:

1. Low-income economies: $1,045 or less;
2. Lower-middle: US$1,046 to $4,125;
3. Upper-middle: US$4,126 to $12,745;
4. High: US$12,746 or more.

#### Grouping by countries

<table>
<thead>
<tr>
<th><strong>LOW INCOME:</strong></th>
<th><strong>LOWER MIDDLE INCOME:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>Armenia</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Bhutan</td>
</tr>
<tr>
<td>Benin</td>
<td>Bolivia</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Burundi</td>
<td>Cape Verde</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Congo</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>Côte d’Ivoire</td>
</tr>
<tr>
<td>Chad</td>
<td>Djibouti</td>
</tr>
<tr>
<td>Comoros</td>
<td>Egypt</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>El Salvador</td>
</tr>
<tr>
<td>Eritrea</td>
<td>Georgia</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Ghana</td>
</tr>
<tr>
<td>Gambia</td>
<td>Guatemala</td>
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<tr>
<td>Guinea</td>
<td>Guyana</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>Honduras</td>
</tr>
<tr>
<td>Haiti</td>
<td>India</td>
</tr>
<tr>
<td>Kenya</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Liberia</td>
<td>Kiribati</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Kyrgyzstan</td>
</tr>
<tr>
<td>Malawi</td>
<td>Lao People’s Democratic Republic</td>
</tr>
<tr>
<td>Mali</td>
<td>Lesotho</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Mauritania</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Micronesia (Federated States of)</td>
</tr>
<tr>
<td>Nepal</td>
<td>Moldova, Republic of</td>
</tr>
<tr>
<td>Niger</td>
<td>Mongolia</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Morocco</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Somalia</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Pakistan</td>
</tr>
<tr>
<td>Togo</td>
<td>Papua New Guinea</td>
</tr>
<tr>
<td>Uganda</td>
<td>Paraguay</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>Philippines</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Sao Tome and Principe</td>
</tr>
</tbody>
</table>
Senegal
Solomon Islands
South Sudan
Sri Lanka
Sudan
Swaziland
Syrian Arab Republic
Timor-Leste
Ukraine
Uzbekistan
Vanuatu
Viet Nam
Yemen
Zambia

UppEr Middle income:
Albania
Algeria
American Samoa
Angola
Argentina
Azerbaijan
Belarus
Belize
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
China
Colombia
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
Fiji
Gabon
Grenada
Hungary
Iran (Islamic Republic of)
Iraq
Jamaica
Jordan
Kazakhstan
Lebanon
Libya
Malaysia
Maldives
Marshall Islands

Mauritius
Mexico
Montenegro
Namibia
Palau
Panama
Peru
Romania
Saint Lucia
Saint Vincent and the Grenadines
Serbia
Seychelles
South Africa
Suriname
Thailand
The former Yugoslav Republic of Macedonia
Tonga
Tunisia
Turkey
Turkmenistan
Tuvalu
Venezuela

High income:
Andorra
Antigua and Barbuda
Aruba
Australia
Austria
Bahamas
Bahrain
Barbados
Belgium
Bermuda
Brunei Darussalam
Canada
Cayman Islands
Chile
Croatia
Cyprus
Czech Republic
Dem People’s Rep of Korea
Denmark
Equatorial Guinea
Estonia
Faroe Islands
Finland
France
French Polynesia
27 countries and territories in the FRA 2015 set of 234 countries do not have a World Bank income category, these are the following:

- Anguilla
- British Virgin Islands
- Cook Islands
- Falkland Islands (Malvinas)
- French Guiana
- Gibraltar
- Guadeloupe
- Guernsey
- Jersey
- Martinique
- Mayotte
- Montserrat
- Nauru
- Netherlands Antilles
- Niue
- Norfolk Island
- Pitcairn
- Réunion
- Saint Barthelemy
- Saint Helena
- Saint Pierre and Miquelon
- Svalbard and Jan Mayen
- Tokelau
- Vatican City
- Wallis and Futuna
- West Bank
- Western Sahara
# ANNEX 5

## List of FRA 2015 variables by topic

<table>
<thead>
<tr>
<th>TOPIC / Variable</th>
<th>Unit</th>
<th>Reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOREST AREA AND FOREST CHARACTERISTICS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Forest area</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.2 Area of other wooded land</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.3 Area of other land</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.3.1 ...of which with tree cover</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.4 Inland water bodies</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.5 Total country area</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>1.6 Forest expansion</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.6.1 ...of which afforestation</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.6.2 ...of which natural expansion of forest</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.7 Deforestation</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.7.1 ...of which human induced</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.8 Reforestation</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>1.8.1 ...of which artificial</td>
<td>1000 ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>2.1 Primary forest</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.2 Other naturally regenerated forest</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.2.1 ...of which introduced species</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.2.1.1 ...of which naturalized</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>2.3 Planted forest</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.3.1 ...of which introduced species</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.4 Area of mangrove forest</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.4.1 ...of which planted</td>
<td>1000 ha</td>
<td>x</td>
</tr>
<tr>
<td>2.5 Primary forest transition matrix</td>
<td>1000 ha</td>
<td>(1990-2000, 2000-2010, 2010-2015)</td>
</tr>
<tr>
<td><strong>PRODUCTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Total forest growing stock</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.1.1 ...of which coniferous</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.1.2 ...of which broadleaved</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.2 Total other wooded land growing stock</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.2.1 ...of which coniferous</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.2.2 ...of which broadleaved</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.3 Net annual increment</td>
<td>m$^3$/ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>3.3.1 ...of which coniferous</td>
<td>m$^3$/ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>3.3.2 ...of which broadleaved</td>
<td>m$^3$/ha/yr</td>
<td>x</td>
</tr>
<tr>
<td>3.4 Volume of top ten species</td>
<td>Million m$^3$</td>
<td>x</td>
</tr>
<tr>
<td>3.5 Above-ground biomass</td>
<td>Million tonnes</td>
<td>x</td>
</tr>
<tr>
<td>3.6 Below-ground biomass</td>
<td>Million tonnes</td>
<td>x</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Units</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>3.7</td>
<td>Dead wood</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>3.8</td>
<td>Carbon in above-ground biomass</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>3.9</td>
<td>Carbon in below-ground biomass</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>3.10</td>
<td>Carbon in dead wood</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>3.11</td>
<td>Carbon in litter</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>3.12</td>
<td>Soil carbon</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>4.1</td>
<td>Production forest</td>
<td>1000 ha</td>
</tr>
<tr>
<td>4.2</td>
<td>Multiple use forest</td>
<td>1000 ha</td>
</tr>
<tr>
<td>4.3</td>
<td>Value of most important commercial NWFP</td>
<td>1000 local currency</td>
</tr>
<tr>
<td>4.4</td>
<td>Total wood removals</td>
<td>Million m$^3$</td>
</tr>
</tbody>
</table>

### PROTECTIVE FUNCTIONS / ECOSYSTEM SERVICES

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Protection of soil and water</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Of which production of clean water</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Of which coastal stabilization</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.3</td>
<td>Of which desertification control</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.4</td>
<td>Of which avalanche control</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Of which erosion, flood protection or reducing flood risk</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.1.6</td>
<td>Of which other</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.2</td>
<td>Ecosystem services, cultural or spiritual values</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.2.1</td>
<td>Of which public recreation</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Of which carbon storage or sequestration</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.2.3</td>
<td>Of which spiritual or cultural services</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>5.2.4</td>
<td>Of which other</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
</tbody>
</table>

### BIODIVERSITY / CONSERVATION

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Conservation of biodiversity</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>6.2</td>
<td>Forest area within protected areas</td>
<td>1000 ha</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>7.1</td>
<td>List of woody invasive species</td>
<td>1000 ha</td>
<td>x x</td>
</tr>
<tr>
<td>7.2</td>
<td>Area of forest affected by woody invasive species</td>
<td>1000 ha</td>
<td>x x</td>
</tr>
</tbody>
</table>

### DISTURBANCE AND FOREST DEGRADATION

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>Total land area burned</td>
<td>1000 ha</td>
<td>Annual data 2003-2012</td>
</tr>
<tr>
<td>8.1.1</td>
<td>Of which forest area burned</td>
<td>1000 ha</td>
<td>Annual data 2003-2012</td>
</tr>
<tr>
<td>8.2</td>
<td>Number of fires</td>
<td>Number</td>
<td>Annual data 2003-2012</td>
</tr>
<tr>
<td>8.2.1</td>
<td>Of which forest fires</td>
<td>Number</td>
<td>Annual data 2003-2012</td>
</tr>
<tr>
<td>8.3</td>
<td>Area of forest damaged by outbreak of: insects, diseases and severe weather events</td>
<td>1000 ha</td>
<td>List of year(s) of latest outbreak</td>
</tr>
<tr>
<td>9.1</td>
<td>Area of forest with reduced canopy cover</td>
<td>% canopy cover</td>
<td>2000-2010</td>
</tr>
</tbody>
</table>

### MEASURING PROGRESS TOWARD SFM

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>Policies supporting sustainable forest management</td>
<td>Boolean</td>
<td>Latest available year</td>
</tr>
<tr>
<td>10.1.1</td>
<td>Of which in publicly owned forests</td>
<td>Boolean</td>
<td>Latest available year</td>
</tr>
<tr>
<td>10.1.2</td>
<td>Of which in privately owned forests</td>
<td>Boolean</td>
<td>Latest available year</td>
</tr>
</tbody>
</table>
### 10.2 Legislation and regulations supporting SFM
- **10.2.1 of which in publicly owned forests**
  - Boolean
  - Latest available year
- **10.2.2 of which in privately owned forests**
  - Boolean
  - Latest available year

### 11.1 National stakeholder platform
- Boolean
- Latest available year

### 12.1 Forest area intended to be in permanent forest land use
- 1000 ha
- x
  - **12.1.1 ...of which permanent forest estate**
    - 1000 ha
    - x

### 13.1 Forest area monitored under a national forest monitoring framework
- %, year, check box
- Latest available year

### 13.2 Forest area monitored through Other field assessments
- %, year, check box
- Latest available year

### 13.3 Forest area monitored through Updates to other sources
- %, year, check box
- Latest available year

### 13.4 Forest area monitored through Expert estimate
- %, year, check box
- Latest available year

### 13.5 Types of forest reporting progress used at national scale
- %, year, check box
- List of year(s)
  - **13.5.1 Criteria and indicators reporting**
    - Boolean
    - Latest available year
  - **13.5.2 Periodic national state of the forest reporting**
    - Boolean
    - Latest available year
  - **13.5.3 Other**
    - Boolean
    - Latest available year
  - **13.5.4 None**
    - Boolean
    - Latest available year

### 14.1 Forest area with management plan
- 1000 ha
- x
  - **14.1.1 ...of which for production**
    - 1000 ha
    - x
  - **14.1.2 ...of which for conservation**
    - 1000 ha
    - x
  - **14.2 Monitoring of forest management plans**
    - Latest available year
  - **14.2.1 Soil and water management**
    - Boolean
    - Latest available year
  - **14.2.2 High conservation value forest delineation**
    - Boolean
    - Latest available year
  - **14.2.3 Social consideration/community involvement**
    - Boolean
    - Latest available year
  - **14.3 Percent of area under forest management plan that is monitored annually**
    - %
    - Latest available year

### 15.1 Type of stakeholder inputs
- List
  - **15.1.1 Planning phase**
    - Boolean
    - Not applicable
  - **15.1.2 Operations phase**
    - Boolean
    - Not applicable
  - **15.1.3 Review of operations**
    - Boolean
    - Not applicable

### 16.1 Area of forest certified under FSC
- 1000 ha
- Annual data 2000-2012

### 16.2 Area of forest certified under PEFC
- 1000 ha
- Annual data 2000

### 16.3 Area of forest certified by other international certification
- 1000 ha
- Annual data 2000

### 16.4 Domestic forest management certification
- 1000 ha
- Annual data 2000

### ECONOMICS/ LIVELIHOODS

<table>
<thead>
<tr>
<th>17.1 Forest revenue</th>
<th>1000 local currency</th>
<th>x</th>
<th>x</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.2 Public expenditures on forests</td>
<td>1000 local currency</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.1 Public ownership</td>
<td>1000 ha</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.1.1 ...of which owned by the state at national scale</td>
<td>1000 ha</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.1.2 ...of which owned by the state at the sub-national government scale</td>
<td>1000 ha</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.2 Private ownership</td>
<td>1000 ha</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.2.1 ...of which owned by individuals</td>
<td>1000 ha</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Section</td>
<td>Ownership</td>
<td>Area (1000 ha)</td>
<td>Management Rights</td>
<td>Employment (1000 FTE)</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>18.2.2</td>
<td>Private entities and institutions</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.2.3</td>
<td>Local, tribal and indigenous communities</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.3</td>
<td>Unknown ownership</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.4</td>
<td>Holder of management rights of public forests</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.5</td>
<td>Public administration</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.6</td>
<td>Individuals</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.7</td>
<td>Private companies</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.8</td>
<td>Communities</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18.9</td>
<td>Other</td>
<td>1000</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>19.1</td>
<td>Employment in forestry</td>
<td>1000 FTE</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>19.1.1</td>
<td>Employment (Female)</td>
<td>1000 FTE</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>20.1</td>
<td>Gross value added from forestry</td>
<td>Million local currency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOOKING FORWARD**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
<th>Area (1000 ha)</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.1</td>
<td>Government targets/aspirations for forest area in 2020 and 2030</td>
<td>1000</td>
<td>2020, 2030</td>
</tr>
<tr>
<td>21.2</td>
<td>Forest area earmarked for conversion</td>
<td>1000</td>
<td>2013</td>
</tr>
</tbody>
</table>

Note: Shaded cells mean that the reported values correspond to an average of a five year period.
ANNEX 6

List of National correspondents, FRA Advisory Group members and reviewers

NATIONAL CORRESPONDENTS

FRA ADVISORY GROUP MEMBERS

REVIEWERS