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**Final project evaluation of “Contribution to the Global
Forest Resources Assessment Programme” -
GCP /GLO/218/MUL**

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Acronyms

AG	Advisory Group to FRA
APO	Associate Professional Officer
BMU	Bundesministerium für Umwelt, Naturschutz (Federal Ministry for the Environment, Nature Conservation)
CBD	Convention on Biological Diversity
CFRQ	Collaborative Forest Resources Questionnaire
COP	Conference of the Parties
CPF	Collaborative Partnership on Forests
DAC	Development Assistance Criteria
DevCo	Development Cooperation
EAMU	Environmental Assessment and Management Unit
EC	European Commission
ET	Evaluation Team
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	Food and Agriculture Organization Corporate Statistical Database
FD	Forestry Department of FAO
FE	Forest Europ
FLEGT	Forest Law Enforcement, Governance and Trade
FOM	Forest Management Division of the FAO Forestry Department
FPMIS	Field Programme Management Information System
FRA	Forest Resources Assessment
FRIMS	Forest Resources Information Management System
GAEZ	Global Agro-Ecological Zoning
GCP	Government Cooperative Programme
GEOS	Global Terrestrial Observing System
GEZ	Global Ecological Zones
GIS	Geographic Information System
GLO	Global
GRSS	Global Remote Sensing Survey
HQ	Headquarters of FAO
HRBA	Human Right Based Approach
ICI_BMU	International Climate Initiative of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
IT	Information Technology
ITTO	International Tropical Timber Organisation
IUCN	International Union for Conservation of Nature
JRC	Joint Research Centre of the European Commission
LTS	Long Term Strategy
LULUC	Land Use Land Use Change
MDG	Millennium Development Goals
MEA	Millennium Ecosystem Assessment
MODIS VCF	Moderate Resolution Imaging Spectroradiometer Vegetation Continuous Fields
MPWG	Montreal Process Working Group
MRV	Monitoring Reporting and Verification
NASA	National Aeronautics and Space Administration of the United States
NC	National Correspondents to FRA

NFMA	FAO Programme of support to <u>N</u> ational <u>F</u> orest <u>M</u> onitoring and <u>A</u> ssessment
NN	National Networks of experts
NR	Natural Resources
OECD	Organisation of Economic Cooperation and Development
OFAC	Observatory for Forest of Central Africa
PDR	People's Democratic Republic of Laos
QCQA	Quality Control Quality Assurance
ROI	Review of Outcomes to Impact
RS	Remote Sensing
RSS	Global Remote Sensing Survey
SDSU	South Dakota State University
SFM	Sustainable Forest Management
SO	Strategic Objective of FAO
SPOT	French: Satellite Pour l'Observation de la Terre
TF	Trust Fund
TOC	Theory of Change
TREES	Tropical Ecosystem Environment observation by Satellites
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNREDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
USD	United States Dollar
USGS	United States Geological Survey
WCMC	World Conservation Monitoring Centre
WRI	World Resources Institute

Executive Summary

Information about the evaluation

ES1. The Final Evaluation of the of the EC project “Contribution to the Global Forest Resources Assessment Programme”, GCP/GLO/218/MUL, which was a reporting requirement in the project document, took place over the period February – May 2014 and was carried out by a team comprising two independent evaluators. The Evaluation was backstopped and quality-assured by FAO Office of Evaluation. The Terms of Reference (ToRs) for the MTE are reproduced in Annex I.

ES2. The main purposes of the evaluation were: i) to provide accountability to all parties concerned with the Project’s achievements; ii) identify areas, if any, that require improvement to enhance the Project’s performance, and formulate relevant recommendations for a second Phase of the Project and iii) identify lessons learned from the evaluation of project design and institutional arrangements that can be useful for this and other similar projects by FAO funded by EU or by other resource partners. The Final Evaluation assessed FAO’s performance in implementing the project during the period 2008 – 2013, thus also including the project’s no-cost extension of 24 months.

ES3. The project has a large number of stakeholders; however the National Forestry Agencies are the main direct stakeholders and are represented through the network of National Correspondents to FAO’s Global Forest Resources Assessment Programme. This Evaluation intends to inform stakeholders how the EC funds contributed to achieving the stated outcome and results through the prescribed activities.

ES4. The EU funded project has been implemented in the framework of the FRA programme, and was aimed at supporting the preparation of the FRA 2010 and 2015. The project outcomes and impacts are analysed in terms of their linkages to the activities and work plan of the FRA programme during the overall project period.

ES5. The evaluation assesses the project from its conceptual phase to current and potential results up to 2015, when the results of next FRA will be released. Since the project aimed to help prepare both the FRA2010 and FRA2015, the assessment examines whether methodological changes were introduced between the two exercises and if any lessons from the earlier FRA were incorporated for the later exercise. The project is critically assessed through the internationally accepted OECD/DAC evaluation criteria, i.e. relevance, efficiency, effectiveness, impact, and sustainability and in line with the new FAO project cycle, the evaluation assesses compliance with the UN Common Country Programming Principles: Human Rights Based Approaches / Right to Food/ Decent Work; Gender equality, Environmental sustainability, Capacity Development and Results Based Management.

Key findings

ES6. In assessing the outcomes to impact chain, a key conclusion is that EC project has been instrumental in improving the FRA process by introducing a series of improvements in the reporting and data collection process. Thus it enhances the ability of FRA to meet its performance Objectives under Organizational Result E1– Policy and practice affecting forests and forestry are based on timely and reliable information contributing to the Strategic Objective E. The concerted effort of FAO, ITTO, CBD, FE and Montreal Process has led to a harmonization of the reporting framework and to substantial decrease in the reporting burden

on countries. Countries only need to compile data once for reporting to different international processes.

ES7. The impact of the project should be viewed in the context of FRA Programme achievement. The EC Project is an important action towards enhancing the position of FRA as a flagship FAO publication. It is also important for providing complete, accurate and timely information in an evolving global context with major environmental challenges of reducing deforestation and forest degradation while addressing poverty and climate change.

ES8. It is however important to note that the aim of the project is to contribute to FRA and was never meant to be a standalone project with its own identifiable impact. As such, it should be viewed as part of a protracted chain of conditions necessary to achieve the FAO strategic Objective E “sustainable management of forest and trees”.

ES9. The capacity building undertaken under the EC project is highly appreciated and serves as a multipronged effort beneficial to both target countries and FAO through knowledge transfer. The concept builds appropriately on previous conclusions that in most developing countries, the quality of current forest monitoring is unsatisfactory for policies as well as for carbon markets and MRV system for performance based incentives.

ES10. The established partnership with international and regional forest related organisations and processes and the developed Collaborative Forest Resources Questionnaire were considered by most informants from outside FAO as the right step forward. It sets up solid basis for widely accepted harmonised forest related terms and definitions and streamlined reporting on forests. Consolidation of both achievements will contribute to strengthening countries’ capacities for forest monitoring and reporting, improving national data quality and reliability, and enhancing confidence in FRA information and ownership of FRA products by all stakeholders. All these gains will influence positively the processes of decision making on forests at the global and national levels and hence contribute positively towards sustainable forest management.

Conclusions

ES11. FRA has relied on a combination of methodologies to collect country forestry data. Traditionally, paper-based questionnaires formed the main approach. It is evident that the evolution of FRA is a continuous process and the EC Project falls within that framework. Continuous evolution is essential particularly in the context of increasing demand for timely, frequent, temporal, and high quality data to support efforts to mitigate ever increasing challenges from climate change and poverty alleviation

ES12. The FRA is an important information source for global efforts to sustainably manage forests, reduce the greenhouse gas emissions and advance other international initiatives related to sustainable forest management. The EC Project is a welcome addition that has contributed and strengthened components of FRA and carries on the momentum to continuously improve FRA. Its use has continued to widen through collaboration with NCs, Government officials, international organizations, and academia. More importantly FRA’s broadening of scope and increasing closer alignment with international reporting and conventions (UNFCCC, UNFF, CBD, ITTO, UN-REDD/REDD+) will most likely have a bigger impact on its role in informing global policy discussions and negotiations. This will be particularly visible with progressive harmonisation of forest related terms and definitions as well as streamlined reporting on forests

ES13. In this regard, the contribution of the EC Project can only strengthen these components through efficiencies, enhancing data quality, consistency and completeness. The demand for accurate data is high but this will take a long time to address. However, the EC Project is an important step in working towards improving the data quality and coverage

ES14. The FRA team is clearly conscious of the need to respond to changing global context. The Forestry Department has been responsive in a way, but greater strategic assessment and commitment, strategic partnerships and investment in reasonable infrastructure to handle increasing FRA data particularly, remote sensing, are necessary to increase relevance and sustainability.

ES15. The EC Project certainly has a catalytic effect in reducing the reporting burden and increase capacity for quality data collection in developing countries particularly. The EC Project concept appropriately identifies the limitations of the FRA Programme with respect to data quality, consistency, and the increasing reporting burden on countries arising from multiple international reporting requirements. The need to coordinate reporting requirements with Multilateral Environment Agreements such as the UNFCCC, the CBD, UNFF; ITTO, regional bodies and regional action plans such as FLEGT is an important recognition by FAO.

ES16. Undoubtedly the project is relevant, its design is generally in line with the intended outputs and likely to be sustainable if funding can be mobilised to address gaps revealed in this evaluation. The stated impact indicators may be seen as ambitious but they are in fact major drivers of global deforestation and forest degradation. For similar projects in future, the design perhaps simply needs to undertake a more robust theory of change analysis to identify realistic causal chains.

ES17. The changes introduced to the FRA process through the EC Project are commended by stakeholders who acknowledge that the FRA processes need to be innovative, forward looking and technologically contemporary. There is wide recognition that FRA is not solely an information provider, but it is a knowledge broker and good reference for designing national forest monitoring and assessments.

ES18. The EC Project was well managed despite some minor challenges arising from delays in the mobilization of all funds required to implement the planned activities. The project was instrumental in leading the FRA programme to deliver and meet the international community and countries' expectations in scope and quality of information, which was clearly improved by the RSS, national and regional capacity building, partnership, and harmonized reporting framework.

ES19. The EC Project deliverables are highly valued by the majority of informants. The EC Project delivered a number of key intended products with positive outcomes in the areas such as improved understanding of FRA, national reporting process and national networks through capacity building, partnerships, and reporting harmonization.

ES20. The project was also instrumental in improving the relevance of the FRA programme as well as of the quality of the produced information for use with more confidence by the international community and countries in their decision making on forests and forestry. It helped improve the visibility and ownership of FRA at the global, regional and country level.

ES21. Despite the important plan of capacity building implemented by FRA at the regional and local levels, the quality of the forestry information in countries will not likely to improve significantly without setting up long term national systems of forest monitoring and assessments . The improved information on forest area and area change generated by RSS is verifiable at the global, regional and ecological zones levels. RSS is not designed for national level implementation. However, the FAO field oriented programmes, like NFMA, UN REDD, FAO-Finland & BMU, can play an important role in setting up national forest monitoring systems and in generating information in a timely manner and with the needed accuracy that benefit the countries and the international community alike.

ES22. The contribution of the global RSS to FRA is paramount. Its sustainability will depend on FAO ability to continue fostering strategic and operational partnerships with EC JRC, Countries, Academia and Researchers and the private sector.

ES23. Noting that the global RSS context is evolving fast, FRA has multiple opportunities to use its comparative advantage to retain its role as a strong leader in the area of global forest resources assessment and being the trusted and credible source of global forest sector data. These opportunities include:

- Free satellite data
- Better computing power now than before
- International institutions willing to collaborate
- More internal coordination to increase efficiencies

ES24. However, there are challenges that need to be addressed. Synchronizing the timing of outputs from FRA to the global conventions' reporting timelines could increase the relevance and use of FRA and that of the CFRQ.

ES25. The FRA team will need to be aware of the impact of some divergent views among stakeholders with regards to some of the improvements to the FRA process. For instance, the new approach of relying on external reviewers of country reports is seen by some informants as done in anonymous way and loses direct contact between FAO and countries' focal points. Sustainability of this measure is questioned by some, therefore there is need to continue to engage stakeholders to improve this process.

ES26. There is interest among stakeholders for understanding regional differences in forestry. Some stakeholders perceive the packaging of the FRA 2015 results as not adequately addressing and reflecting regional specificities that are needed to feed the regional debates on forests and forestry by the FAO statutory bodies like the regional forestry commissions and the regional conferences. This may affect the chance of contributing to the impact of better managed forests.

ES27. While there is recognition that the contribution of the EC project is substantial, the project closed with no clear funding strategy or resource mobilisation to continue some fundamental components such as the remote sensing and capacity building to other countries that require such support. The FRA team did not show it has a clear strategy for resources mobilisation. This may jeopardise the sustainability of the project and programme results.

ES28. While most informants agree that FRA covers too many variables which make it a heavy process, there are voices calling to add further variables that relate to SFM i.e. genetic resources. Defining FRA parameters has been and will continue to be challenging because of

the many stakeholders involved and the FRA team will need to continue assessing the optimal level of variables.

ES29. The fast changing global context regarding land use and forestry information requirements demanded by users will continue to challenge FAO such that the strategy and vision on the future of FRA needs to be continuously reviewed and be adaptive in a timely manner. For instance, there is recognition that multi-purpose national forest inventories and remote sensing efforts are now necessary, but perhaps there is limited understanding at a high level in FO on how to adequately achieve and address these requirements. This is perhaps where FD may have an opportunity to take advantage of internal resources and capacities through better cross-departmental collaboration and more importantly, coordination.

Recommendations

The ET proposes the following recommendations to ensure sustainability of the project outputs and outcome and to enhance the likelihood of impact on sustainable forest management:

Recommendation 1: To FAO Forestry Department Management, on sustainability and funding of RSS for FRA

FAO Forestry Department should ensure that the global remote sensing survey remains a source of information for future assessments of the world forests and should consider revamping its contribution to the RSS from the regular programme funds and from extra-budgetary resources

Recommendation 2: To FAO Forestry Department Management on a strategy for remote sensing

FAO Forestry Department should undertake a strategic review and stocktaking of spatial and temporal analytical requirements across FOM to determine what level of remote sensing capacity is optimal to support the business requirements and for better pooling of resources and expertise

Recommendation 3: To FAO Forestry Department Management on support to national forest monitoring and assessment

FAO Forestry Department should take concrete action to devise and implement long term strategy for FAO support to member countries for forest resources monitoring and assessment giving more recognition to multi-purpose national forest inventories, remote sensing and capacity building

Recommendation 4: To the FRA programme on partnership

FAO FRA should continue, in coordination with the CPF members, strengthening the foundations for the established partnership with other processes and organizations with a view to pooling resources and expertise for continued work on harmonisation of the reporting framework, improvement of the CFRQ and complementarity on forest resources monitoring at country level.

Recommendation 5: To the EC and to FRA on the funding of a second phase of the programme

FAO FRA should act, as a matter of priority, to address the issue of resources mobilisation by concrete action including developing proposal to the EC and opening communication channels with other potential donors for timely replenishment of the FRA programme budget. EC should consider funding a second phase for the support of the global Forest Resources Assessment focusing on (i) the RSS to be jointly implemented by FRA and EC JRC, (ii) the harmonisation of the reporting framework including the CFRQ and, (iii) on capacity building in more developing countries.

Recommendation 6: To the FRA programme on Reporting - online country reporting technology; Collaborative Forest Resources Questionnaire; FRA main report and reporting timelines of the global conventions and processes

FAO FRA should undertake a strategic review and stocktaking of all the introduced changes to the FRA process for lessons learnt and improvement of the introduced technology of online country reporting.

FAO FRA should also continue working with its partner organizations and countries to reduce the reporting burden on countries with continued effort on: (i) harmonisation of the forest related terms and definitions (ii) improving the thematic coverage of the CFRQ that would broaden the range of its use by international and regional forest related organizations; (iii) synchronization with the reporting timelines of the global conventions and process that would increase relevance and use of FRA information and (iv) enhancement of reporting interaction among reviewers and process transparency

Furthermore FAO FRA should continue working towards improving the visibility and relevance of the FRA Programme, enhancing its ownership by all users and contributing to the impact of SFM including producing FRA main report targeting, among users, the FAO's regional statutory bodies like the regional forestry commissions and the regional conferences where FRA information is needed on regular basis.

Recommendation 7: To the FRA programme on technological development

FAO FRA should maintain the FRA programme in tune with the technological development based on expert consultations and advice from expert groups like the FRA AG and the international partners including the EC JRC

Recommendation 8: To the FRA programme on sampling design of the RSS

FAO FRA should engage in discussions with EC JRC, SDSU and other concerned parties including the private sector, where possible, to improve and adapt the design of the global remote sensing survey to meet the information users' requirements

Recommendation 9: To the FRA programme on FRA variables and end products

FAO FRA should undertake dialogue through expert consultations involving stakeholders (countries, international organisations, academia, private sector as well as the FRA Advisory Group) to redefine the variable list that meet the evolving information needs, define the FRA end products and the suitable packaging of the FRA produced information

Recommendation 10: To the FRA programme on FRA national correspondents

FAO FRA should continue strengthening the network of national correspondents for future assessments and between reporting periods as backbone for improving the quality of national

forestry information and raising awareness on the utility of national forest monitoring system, and expanding the experience of national expert networks in other countries

1 Introduction

1.1 Background and purpose of the Evaluation

1. This is the final evaluation of the GCP/GLO/218/MUL project designed to support the “Global Forest Resources Assessment” implemented between January 2009 and December 2013. It was funded by the project funds provided by the EC. The objectives of the evaluation are to:

- Provide evidence of the results meeting accountability requirements.
- Promote learning, feedback and knowledge sharing through results and lessons learned among the participating Organizations and other partners.
- Identify key building blocks that have successfully brought about the desired outcomes.

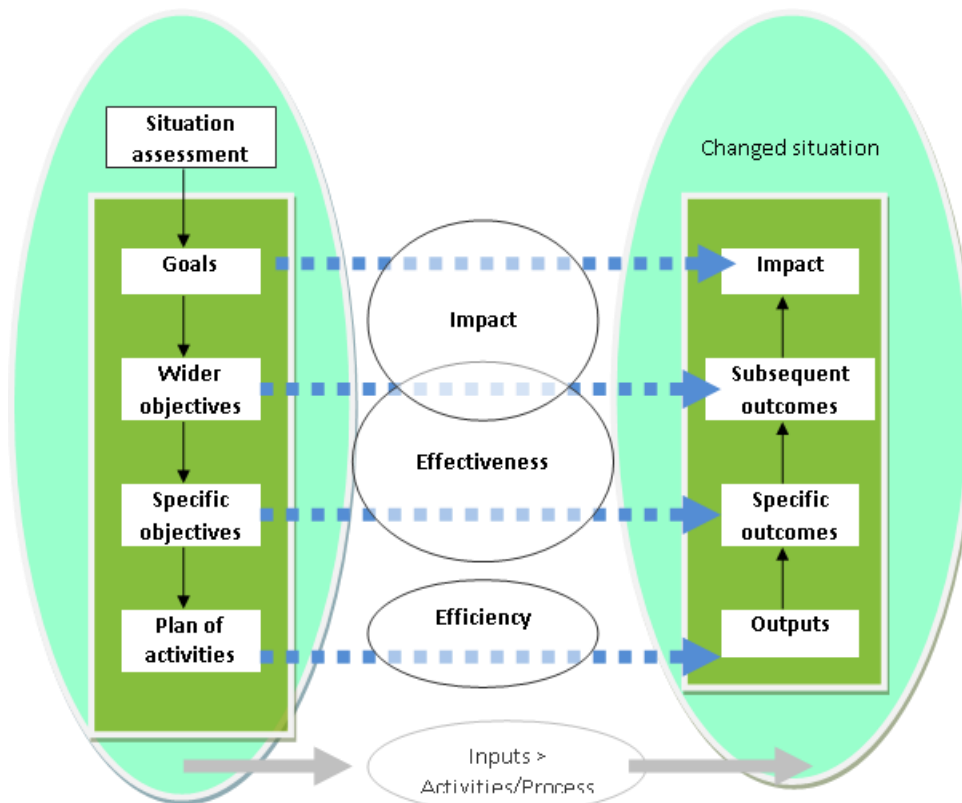
2. The primary audience for the evaluation are the FAO in its capacity as the implementing agency of the Project and the European Commission in its capacity as the Resource Partner. The secondary audience for the evaluation are the partner organisations and institutions including the Joint Research Centre for Europe (JRC), the support experts groups like the Advisory Group, and the network of National Correspondents to FRA. This evaluation provides FAO and the Resource Partner the needed elements for negotiating a new funding of the components of EC project that are necessary to continue.

1.2 Methodology of the Evaluation

3. The evaluation methodology follows the guidance provided in the ToR and is based on interviews, and extensive consultation with FAO and external stakeholders through meetings and teleconferences. The methodology comprised the following elements:

- Application of the evaluation criteria as reflected in the FAO Charter for Evaluation that examines relevance, effectiveness, efficiency, impact and sustainability.
- The FAO Charter for Evaluation framework is applied within the context of the EC project framework (i.e. logical framework) in terms of its original design – overall objectives, intended impacts, planned results and activities, and any changes to the logical framework during the period from 2009 to 2013. Figure 1 illustrates some of the linkages between the evaluation criteria and a project logical framework. Further, as per FAO evaluation policy, the evaluation assessed to what extent the EC project has mainstreamed gender equality concerns in its work.

Figure 1: Impact analysis in relation to logical structure



Source: Adapted Oakley et al., 1998¹

4. Following the Review of Outcomes to Impacts (ROtI) methodology, the ET sought to understand the EC project intended impacts and mapping out the corresponding Theory of Change (TOC). A detailed TOC analysis is provided in **Error! Reference source not found.** The basis for the evaluation framework is a series of tailored questions, judgement criteria, and indicators against the Organisation for Economic Co-operation and Development (OECD) Development Assistance Criteria (DAC). It should be noted that the design of projects does not always follow a strict TOC process. As such, where an evaluation requires a ROtI, it may be necessary to reconstruct the project’s impact pathway to determine intermediate states. This process may involve for instance breaking down outputs, outcomes and assumptions into sub-components according to the log frame. This is the approach adopted for this evaluation.

5. The evaluation tools included:

- Meetings with professional staff in FRA and in other units of the Forestry Department and Natural Resources Department
- Meeting with scientists in the Forest Resources and Climate Unit of the EC JRC
- Teleconferences with representatives of international partners organisations including UN CBD, UNFCCC, EC (donor), ITTO, UNECE, OFAC, Montreal Process, FRA Advisory Group, South Dakota State University

¹ Impact Analysis, Oakley et al, 1998

- Teleconferences with national experts from five selected countries Ecuador, Lao PDR, Nepal, South Sudan and Uganda
- An electronic survey (E-survey) distributed to 787 national correspondents reporting to FRA, remote sensing specialists and other country experts. The survey covered issues related to the relevance of the FRA information and its use in countries; the impact of the FRA information on sustainable forest management in countries; the relevance of the harmonized reporting framework introduced by FRA to countries and the extent to which it reduces the reporting burden on countries; FAO's role in improving country's information; FAO's role in developing country's capacity for information generation, management and reporting and; relevance of the global remote sensing survey to countries.
- Review of documentation – annex 3 - including project document and logical framework, progress reports, EC monitoring reports and various other reports.

6. The evaluation is based on the following five thematic areas:

- **Relevance:** the extent to which the EC funded project and its intended outcomes or outputs are consistent with the global goals for forests and forestry outlined in the FAO strategy for forests and forestry and the corporate strategic framework of the Organisation. The Relevance also considers the extent to which the project is aligned with the global Forest Resources Assessment programme priorities of producing consistent, timely and accurate information on world forests that meets the needs of the global, regional and national beneficiaries including enabling countries (i) to make the best use of existing information for decision making at national level and for reporting to the main forest-related processes e.g. the CBD, the UNFCCC, UNFF, ITTO and the MDG process and; (ii) to benefit from potential incentive scheme under the UNFCCC to reduce emissions from deforestation and forest degradation in developing countries.
- **Effectiveness:** measures the extent to which the Project's intended results (outputs and outcomes) have been achieved or the extent to which progress towards outputs and outcomes has been achieved.
- **Efficiency:** measures how economically resources or inputs (such as funds, expertise and time) are converted to achieving stipulated outcomes and outputs.
- **Sustainability:** analyses the likelihood of sustainable outcomes at project termination, with attention to sustainability of financial resources, the socio-political environment, catalytic or replication effects of the project, institutional and governance factors, and environmental risks.
- **Impact:** measures to what extent the Project has contributed to, or is likely to contribute to, intermediate states towards impact, such as harmonized and effective forest assessment, monitoring and reporting systems at national, regional and global levels; reduction in the current rate of deforestation; reduction in the current rate of loss of carbon stocks in forests and; increase in the area of forest under sustainable forest management worldwide. The evaluation assesses the likelihood of impact by critically reviewing the Project's intervention strategy (Theory of Change) and the presence of the required drivers and assumptions for outcomes to lead to intermediate states and impact.

7. The evaluation framework constituted the main instrument for data collection during the evaluation. However, the framework is treated as a guide because it evolved during

delivery of the assignment. The ET analysed the project log frame to determine project design appropriateness and link to outcomes.

8. Evaluations of this nature are important to identify opportunities for improving the delivery of programmes of national significance. FAO informed all major forest related organisations in advance to give time for feedback on all issues related to FRA and implementation of the EC project. The E-survey was widely disseminated through contributors to FRA, including the National Correspondents and alternates as well as national remote sensing specialists and members of the national networks who participated in FRA capacity building workshops.

9. In general, the methodology of the evaluation was largely followed. However, despite the obvious efforts by the FRA team and OED to provide the ET with the needed support, the ET could not cover all the sources of information identified at the beginning of the evaluation process. Only 22% of the people contacted through the online E-survey responded and provided important feedback. The ET could not meet the representative of Forest Europe and the national experts from India and Bangladesh. In some cases, such as South Sudan and Uganda, poor teleconference connections made interviews challenging resulting in loss of valuable time. In general, the ET is of the view that the allocated timeframe for conducting the evaluation was short. This does not mean that the informants did not provide valuable feedback, but future evaluation could perhaps consider allocating more time for interviews.

10. The FRA team provided the list of countries² and key informants such as national experts including the NCs to FRA, remote sensing specialists and members of national expert networks. Each of these countries has received support from the EC project namely for building country's capacity and setting up the national expert networks for national forest monitoring and reporting on forests and forestry.

2 Context of the project

11. The world's forests have been and expected to continue to be the pillar for the socio-economic developments and the major regulator of environment. They have been and will continue providing the world community with a wide array of goods in the form of renewable raw materials and energy; maintaining biological diversity; mitigating climate change; protecting land and water resources; providing recreation facilities; improving air quality and helping alleviate poverty. At the same time, forests are affected by fire, air pollution, pests and invasive species and are the primary targets in many countries for agricultural and urban expansion.

12. Since its establishment, FAO has been mandated by its member countries to collect, analyse, and disseminate reliable and comparable information on the world forests. 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

² Bangladesh, Nepal, India, Ecuador, South Sudan, Uganda, Laos PDR

fisheries, marine products, forestry and primary forestry products.” (Article I, Functions of the Organization, paragraph 1).

13. Since 1946, the FAO Forestry Department (FD) has carried out, in close collaboration with member countries, the Global Forest Resources Assessments (FRA) at 5 to 10 year intervals in an attempt to provide a consistent approach to describe the status of world’s forests and ongoing changes. FRA data is widely used for a variety of purposes. Some examples of processes that made good use of the knowledge generated by the FRA include the FAO-led forestry outlook studies, the biennial issue of State of the World’s Forests (SOFO), the Millennium Ecosystem Assessment (MEA, 2005) and the Global environmental outlook 3 (UNEP, 2002) .

14. FRA information also contributes to the monitoring of progress towards the Millennium Development Goals (MDG), by international conventions such as the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), the United Nations Forum on Forests (UNFF), and the International Tropical Timber Organization (ITTO). They are also widely used by the research community and academia and by the public. The FRA programme covers all countries and territories and primarily focuses on collection, analysis and dissemination of existing information related to forests. The FRA reports are the main source of quality controlled, global information on forest resources, their condition, uses and values and are widely used by governments, donors, international agencies, private companies and NGOs for policy development and investment.

15. Through a series of reviews, studies, stakeholder consultations, and FAO strategic planning, the FRA process has continued to evolve. 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, 2002³). FRA 2005 examined the status and past trends for about 40 variables covering the extent, condition, uses and values of forests and other wooded land, with the aim of assessing all benefits from forest resources. Information collated came from 229 countries and territories for three points in time: 1990, 2000 and 2005. In relation to FRA 2010, the Kotka V Expert Consultation on the Global forest Resources Assessment, paved the way for modernisation of the FRA process. The Expert Consultation’s main recommendations include support to capacity building, maintaining and strengthening the network of national correspondents, improving collaboration with other processes and organization, streamlining data collection and reporting through Internet applications, use of remote sensing for improving the knowledge about forest and land use change dynamics at the biome, regional and global level.

16. FRA has relied on a combination of methodologies to collect country forestry data. Traditionally, paper-based questionnaires formed the main approach. But more feedback from the recent expert consultations, the Advisory Group and the Users’ survey revealed the need to consider streamlining the reporting and to establish long-term goals between reporting processes that aim to reduce the reporting burden on countries. The feedback helped to further identify the need to increase 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. These components aim

³ <http://www.fao.org/forestry/4066-052cd8d30efec16ccdba5c501bf56a42b.pdf>

at contributing to the sustainability of the project achievements and improving the relevance of FRA but just how these considerations would be implemented in the future would require more efforts by FRA as well as by its partners.

17. However, in its twentieth session (2010), the Committee on Forestry (COFO) requested FAO to prepare a LTS for the FRA programme consistent with prospects for sustainable funding. COFO endorsed the strategy in its twenty-first session in 2012. The FRA LTS, now in place, reflects FAO Forestry Department's commitment to strengthen country's capacities to overcome the challenges to sustainable forest management through reliable information, policy advice, and technical assistance. Thus, FRA LTS directly contributes to the FAO's Strategic Objective E: Sustainable Forest Management. The long-term strategy also fits well under the new strategic plan of FAO where FRA falls under the new Strategic Objective 2: "increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner".

18. An Advisory Group representing partner institutions and a range of countries from all regions guides the FRA process. Beside the countries represented in the Advisory Group, the international institutions include ITTO, the Ministerial Conference for the Protection of Forests in Europe (MCPFE – now known as Forest Europe), CBD, UNFCCC, UNEP, World Conservation Monitoring Centre (UNEP-WCMC), the International Union for Conservation of Nature (IUCN) and the World Resources Institute (WRI). The FRA relies on a solid network of officially nominated national correspondents who act as national focal points for data collection on forests, compilation and reporting to FRA. The national correspondents receive periodic training on FRA methodology and new reporting requirements.

19. The FRA has traditionally been carried out at approximately 10 year intervals with substantial project funding. The continuous evolution has resulted in the interval between assessments shortened to 5 years making the FRA a continuous process. Despite that FRA is the largest single investment in regular program funding of the FAO Forestry Department, the expanding scope of the assessments stretched FAO's resources to the limit. Considerations for capacity building aspects of the country reporting process and the global remote sensing survey fall outside the usual scope of FAO's normative activities related to forest resources information and needed external funding.

20. FAO presented a project proposal to the European Commission (EC) seeking financial support for the FRA process for the period 2008-2011 which covered the implementation of the FRA 2010. The proposal aimed at implementing the recommendations of Kotka V Expert Consultation by addressing the need for harmonization of forest-related reporting, the lack of adequate information and the lack of capacity for forest assessment, monitoring and reporting. The proposal included a complementary global remote sensing survey aiming at substantially improving the knowledge about land use change dynamics, including deforestation, afforestation and natural expansion of forests. Furthermore, the remote sensing initiative will establish a platform for future monitoring of these parameters.

21. The EC Project started effectively in 2009 and completed in 2013 following a two year no cost extension in 2011. In particular, the 2010 FRA included the Global Remote Sensing Survey (RSS), which is a result of a partnership between FAO, countries and the European Commission Joint Research Centre (JRC). FAO worked closely with countries and forest assessment specialists in the design and implementation of FRA 2010. More than 900 contributors were involved, including 178 officially nominated national correspondents and their teams.

22. The EC project budget of € 3.1 million was provided to cover the cost of expert meeting on harmonizing forest-related definitions, the networking and capacity strengthening aspects of the country reporting process, the global remote sensing survey and for five selected special studies for the Global Forest Resources Assessment 2010. That amount was complemented by funds from other sources as indicated in table in Annex 5.

23. To implement the EC project and carry out the Global Forest Resources Assessment programme, FAO employed a Senior Forestry Officer, two Forestry Officers and two support staff at HQs and relied on the assistance of the FAO's network of regional and sub-regional officers as well as on short and long-term consultants.

3 Analysis of project concept and design

24. The EC Project was designed with an overarching goal of contributing to sustainable forest management with two key outputs (a) improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry, and (b) increased capacity in developing countries for forest assessment, monitoring and reporting following a common framework and an agreed methodology. The outcome of the EC Project is intended to be "well-informed and better decision-making related to forests and forestry based on comprehensive, timely and accurate information". This is a well-informed outcome as it is based on guidance from the FRA Advisory Group and one that has a positive effect on the performance objective of the FRA Programme. Towards achieving this outcome, the project design contains the two key outputs stated above. The outputs were to be achieved through five modules which are;

- Module 1: Harmonization of terms and definitions and streamlining of reporting
- Module 2: Strengthening the capacity for forest reporting
- Module 3: The FRA 2010 Remote Sensing Survey
- Module 4: Special studies
- Module 5: Support to networking activities

25. A general statement to make is that the relation between the outcome, the outputs, and activities is clear and explicit. However, while the evaluation requires an assessment of project impact, the design of the project and the scope of the evaluation place limitations to adequately assess impact because there is no explicit statement of intended impact in the project design. The project goal is to contribute to the FRA process and thus its impact can only be measured as part of the overall, which is not in the scope of this evaluation.

26. Within FAO, the FRA Programme implementation falls under Strategic Objective E (SO E): Sustainable management of forests and trees. More specifically, the FRA Programme is accounted for under Organizational Result E1 – Policy and practice affecting forests and forestry are based on timely and reliable information. While this is not an evaluation of FRA, the effectiveness of the contribution of the EC Project is in fact dependent upon the ability of the FRA Programme to meet performance objectives under Organizational Result E1. The design of the EC Project did in fact enable the achievement of stated outputs and completion of planned activities with some minor modifications.

27. It is appropriate that the project was designed to fit within the FRA framework rather as a standalone project. This arrangement enabled the implementation of the project to benefit from pre-existing management structures. The project was designed with four modules

intended to help build capacities and respond to users' needs, which are now reflected in the FRA Long Term Strategy⁴.

28. FAO should be commended for the project concept, which appropriately identifies the limitations of the FRA Programme with respect to data quality, consistency, and the increasing reporting burden on countries arising from multiple international reporting requirements. The need to coordinate reporting requirements with Multilateral Environment Agreements such as the UNFCCC, the CBD, UNFF; ITTO, regional bodies and regional action plans such as FLEGT is an important recognition by FAO which should reduce the reporting burden on countries. It also devolves the responsibility for ensuring data consistency and quality to these bodies. This allows FAO to focus on more strategic issues and its role as the custodian of the global forest resource reporting. The E-survey results – **(Error! Reference source not found.)** - suggest that the attempts to harmonize to FRA reporting are effective as more than 50% of the respondents are positive of the harmonized framework.

29. The design enabled implementation of substantial capacity building activities, which reached 206 national remote sensing experts between 2009 and 2011 from 108 countries, 145 experts from 107 countries for FRA 2015 and 329 national expert networks from 10 countries. The relevance and effectiveness of this capacity building strategy is perhaps reflected in the positive responses to the E-survey question on the adequacy of the capacity building. Over 60% of the respondents indicate that the capacity development was adequate and relevant to the reporting needs of their country.

30. The concept of the RSS is a logical and pragmatic step in order to improve the schematic and spatial context of land cover and land use change as well as the ability to employ spatio-temporal analysis at the regional, climatic domain and global levels. It is also likely that in the long-term, an increasing ability to utilise remote sensing and tracking land use and land use change at country level will lead to better accounting for the challenging aspects of deforestation, and forest degradation. Furthermore, the capacity building strategy serves as a multi-pronged effort beneficial to both target countries and FAO through knowledge transfer. The concept builds appropriately on previous conclusion that in most developing countries, the quality of current forest monitoring is unsatisfactory which precludes access to carbon markets or performance-based incentives (Holmgren et al., 2007).

31. It is noted that the focus of the RSS is on land use and land use change detection and not just on land cover. This is appropriate as understanding land use change dynamics will lead to better understanding of drivers and agents of deforestation as opposed to simply tracking forest cover change. It also leads, eventually, to better understanding of drivers of deforestation and forest degradation. The RSS approach is also necessary as a catalyst for developing consistent methodologies for tracking land use and land use change at the global level. It is also an approach that has value for UNFCCC and other international processes and its continuation should be supported. However, it is probably prudent to consider this approach as means to developing common methodologies rather than one that would produce nationally relevant land use and land cover maps.

⁴ FRA Long-Term Strategy (2012 – 2030) available in all FAO languages at: <http://www.fao.org/forestry/fra/en/>

32. In addition to these positive design elements, there are aspects of the design that could be further enhanced as considerations are made for continuation of some of the activities. The articulation of impact indicators is always important in creating a clear vision and managing stakeholder expectations. The EC Project overall goal is of course relevant with regards to the global challenge of tackling deforestation and forest degradation and reducing greenhouse gas emissions. However, in the context of the EC Project a more robust analysis and identification of impact indicators that have a more direct link with FRA performance objectives would be more appropriate and easier to measure. The impact indicators stated in the project document can be construed as ambitious because there is a long chain of intermediaries that would need to be achieved first before the impact indicators become visible.

33. Verifying the project logic following the outcomes to impacts reveals a gap or rather a distant connection between outputs of the EC Project and four of the stated impact indicators (a-d) below:

- a. A reduction in the current rate of deforestation;
- b. An increase in the area of forest under sustainable forest management worldwide;
- c. An increase in the area of forest in protected area system;
- d. A reduction in the current rate of loss of carbon stocks in forests
- e. Harmonized and effective forest assessment, monitoring and reporting systems in place at national, regional and global levels.

34. The above indicators are relevant towards addressing the global challenge of curbing forest loss and forest degradation through various drivers, (a), (b), (c), and (d) have rather limited connection to the output activities of the EC Project. The manner in which these indicators are articulated in the project design has a potential to create expectations that are beyond the scope of the project and even the mandate of FRA and indeed FAO especially at the country-level. It is important that a project's indicators of impact have a clear causal chain and a clear change logic that identifies the outcomes to be achieved and necessary pre-conditions.

35. The stated outcome and the outputs have an indirect link to the interacting impact indicators above. For instance, the causes of deforestation and the interventions necessary to reduce deforestation rates largely reside within national policies, effectiveness of institutional arrangements, forest governance, socio-political environment and other drivers. These are domains that FRA, and indeed the EC project do not necessarily directly influence.

36. The design of the RSS is understandably complex as it attempts to cover the globe. The fact that the land cover and land use is derived from a globally dispersed network of sample points means further effort and resources are required to make such a dataset statistically appropriate for national level reporting. Individual countries will have differing forest definitions and the interaction between land use and land cover will also differ according to land use practices. These are components that FRA may not be able to address through the RSS but will be leveraging off ongoing efforts through say UN-REDD, REDD+, NFMA, FAO-FIN (in participating countries) and other country specific bilateral or multi-donor projects.

37. The design of the RSS is based on a systematic sample of 10km x 10km satellite image extracts at each 1-degree intersection of latitude and longitude. The assessment covers the whole land surface of the Earth consisting of about 13,500 samples, of which about 9,000

samples are outside deserts and areas with permanent ice. The area covered at each sample site is 10 km x 10 km, providing a sampling intensity of about 1 percent of the global land surface. This grid of sample plots is the same as used for the national forest assessments supported by FAO and by many national forest inventory programmes.

38. It is important though for the FRA team to continue communicating the rationale and limitations of the approach and results. During this evaluation, multiple stakeholders expressed differing views about this design depending on needs. For instance, regional and global processes such as UNFCCC find this global level assessment necessary to give international negotiations a full global perspective. At the country level, the FRA process and the RSS are catalysts for national level data collection as well as providing guidance and robust process for information integration. It appears that some countries might have expected the results to be suitable for extrapolating to produce national level land use and land cover statistics. It is unlikely that such an extrapolation would provide results that can be reliably used to make sub-national level policy decisions because the sampling intensity would be insufficient at country level. Some of the views expressed during this evaluation are consistent with the 2010 FRA Auto-Evaluation⁵

39. The key point to note here is that the methodological process and tools produced from this project are very useful for use by countries and enable common methodological approaches. At the technical level, methodological design of remote sensing activities such as image processing, quality control and quality assurance (QCQA), as demonstrated in guidance reports, are rigorous and generally align with best practice. This is illustrated in the description of map products. In addition, workflow processes to improve the consistency of image classification were introduced and provided to country staff engaged in the validation of initial land cover and land use. About 63% of the respondents in the E-Survey consider the design of the RSS as significantly appropriate. It could be stated that this response might not just reflect the considerations of design of the RSS, but rather the increasing role of remote sensing in resource assessment.

40. In addition, the collaboration with individuals nominated by national institutions and NCs is also a sound approach as it increases the opportunity for institutionalising the FRA process. This reduces the risk of knowledge loss when individuals move to different jobs or roles. It is recognised and reiterated by informants interviewed –**Annex 4** - that national level capacity is always a hindrance to the production of high quality data as required by FRA.

41. Interviews with NCs illuminate some degree of misunderstanding of the EC Project objectives. For countries such as South Sudan and Laos, there was a greater expectation that FRA and the RSS would provide data, maps and satellite imagery relevant to national reporting policy formulation. This is a misunderstanding of the purpose of the FRA in that it is a collection of data submitted by the countries themselves. This data ownership paradox was reported in previous evaluations.

42. The above shortcomings in the design do not substantially weaken the EC Project nor the FRA programme. The EC project design strategies and methodologies are still relevant as they take full advantage of the framework of FRA Process spearheaded by FAO. FAO has a history of running large programmes and projects, therefore, has the relevant experience, processes and procedures necessary to implement the project. Note that this is not an

⁵ Forest Resource Assessment Working Paper 178

evaluation of FRA, but rather an assessment of how the EC Project contributes to and strengthen the FRA process

43. It should be noted that the limitations with the project design have not necessarily weakened FRA because the EC project was always meant to contribute to components of FRA. Therefore, in looking forward, there are opportunities to strengthen some of the design issues in the event that a similar project is implemented. The impact of design limitations on outputs are small as the project team was able to make adjustments to adapt to changing circumstances.

4 Analysis of project Implementation process

44. This section briefly examines the implementation arrangements for the EC Project including financial resource management.

4.1 *Project management and coordination*

45. Implementing the project within the framework of the FRA Process is an important strategic approach. It is anticipated that this effort will have a far-reaching impact on global level collaboration - especially in achieving and sustaining harmonized, comprehensive, timely and accurate information on forests and forestry. Of note is that the EC Project was introduced to support an existing programme and therefore did not necessarily require a separate project management structure.

46. While the FRA Team of the Forestry Department was responsible for the implementation of the tasks, the global nature of the project required strategic alignment with the FAO network of regional and sub-regional officers as well as short and long term consultants, project staff and Associate Professional Officers (APOs). This approach seems to have worked well judging by the positive feedback from NCs through E-survey and those interviewed from Uganda, Nepal, Ecuador, Laos and South Sudan as well as from UNECE, Geneva.

47. The FRA regular programme funded team composed of one Senior Forestry Officer, three Forestry Officers and two support staff. Project funding allowed expansion of this team with three additional professional staff and one support staff. As such, some of the activities under this project were sub-contracted to specialized external entities. Such a small team may from time-to-time find itself overstretched. Nevertheless, it is noted that the implementation strategy is largely based on use of external consultants. The FRA Senior Forestry Officer acted as the Secretary to the FRA Advisory Group and undertook the day-to-day management of the Project. In general, the project management is well structured with regular monitoring through annual performance reports, which form the basis for risk management and mitigation.

48. During the life cycle of the project, there is evidence and feedback that despite some gaps in the design, the overall collaboration during implementation improved through coordination between the FRA team, JRC, NFMA, UN-REDD, FAO-FIN, and NCs. Work on RSS was completed in close collaboration with countries whereby RSS image data was reviewed and compared against national forest spatial data, imagery or other ancillary data.

Feedback from staff with FAO seems to suggest that closer internal collaboration and coordination between operating units can be achieved.

49. Some informants commented that there is a positive shift in attitude towards closer coordination and collaboration between departmental programmes and across FAO. The lack of coordination and collaboration can potentially affect negatively the long-term sustainability of the outcomes and reduce the impact of the project.

50. A component such as the RSS will remain highly dependent on extra-budgetary resources to ensure continuity. Conversely, a RSS that cross cuts and supports all units and programmes in the FD whether for global reporting or country level projects would enhance the relevance of remote sensing at the national and global levels as well as improve national forest monitoring systems. Better coordination can sometimes be achieved through a design that embeds institutional coordination and collaboration as a fundamental strategy to achieve efficiency.

51. General feedback received from some FAO staff indicates that the project concept and design could have taken greater advantage of some existing normative products and processes already established by other business units such as the Environmental Assessment and Management Unit (EAMU) of the NR Department of FAO. It is noted that there was initial attempts to collaborate but some differences in technical approaches and requirements limited full utilisation of already existing infrastructure. The EAMU has a large number of land cover and land use products from remote sensing including the Food Insecurity, Poverty and Environment Global GIS Database that can feed into the FRA process especially for specific studies on forestry related issues. It also has a well-resourced IT infrastructure capable of handling and processing large volumes of satellite imagery. Section 6.4 also discusses this aspect in relation to the EC Project impact.

52. Although there are these issues, the ET observed that staff in each of these programmes make an effort to interact and exchange knowledge, but an organisational perspective and strategic intent would result in better utilisation of resources and increase efficiencies. Each of these programmes has invested substantially in human resources and infrastructure as well as having developed a large pool of normative products.

53. Project monitoring and evaluation was undertaken through regular meetings. No specific mid-term evaluation was undertaken as the Strategic Evaluation of FAO's Role and Work in Forestry (2012) was considered to have provided sufficient feedback on the EC Project. The sufficiency of the mid-term evaluation is perhaps debatable because it is unlikely to have assessed the EC Project in detail. During this evaluation, there are opinions of strategic importance discussed as they affect the likelihood for long-term impact. Section 6.4 provides an in-depth discussion of these issues.

54. A focused mid-term evaluation would have also stimulated debate on how remote sensing would fit into the evolving context regarding other FOM programmes such as NFMA, UN-REDD, and of necessity FRA 2015 and beyond. Feedback from key stakeholders such as DEVCO indicates that FAO could have taken a more proactive approach at the project mid-point. This would have assisted in the formulation of steps required for project continuation or a follow-on phase.

55. As the purpose of this evaluation is to provide some recommendations on the way forward, these missed opportunities can now be addressed. The issues identified above do not

override the fact that the project was well-managed administratively. This is largely because processes, staff, structure, and procedures are already established. In this instance, the FRA Advisory Group established in 2002 had a substantial networking capacity able to provide support required to coordinate key stakeholders.

56. There is no particular exit strategy since the project ended and the outputs are considered part of the continuous FRA process.

4.2 Financial resources management

57. The Project funding came from several sources including Australia, Finland, ITTO, France, and the European Commission. The project initially suffered some initial delays, as funding from these various sources was not immediately available in line with the agreed commencement date.

58. The management of project finances occurs at various levels with incoming funding and reporting occurring through FPMIS. The management of project budgets, expenditure and forecasting is largely the responsibility of the FRA team leader.

59. **Error! Reference source not found.** below provides a summary of project funding and the proportion contributed by each party. As this is not a financial audit, the assessment of financial information is limited to high-level qualitative analysis.

Table 1. Budget and funds disbursement

Donor	Approved Project Budget	Approved Programme Budget translated in USD as of 25 February 2014	Amount transferred (USD)	Activity Reference
1	2		3	4
AUSTRALIA 1st Agreement	100,000.00 USD	100,000.00	100,000.00	TFAA110008157
FINLAND	500,000 EURO	734,369.72	734,369.72	TFAA110008157
EC	3,100,000.00 EURO	4,229,087.44	3,727,052.16	TFAA110108157
ITTO	80,000.00 USD		105,000.00	TFAA110008157
FRANCE	70,323.49 USD	70,323.49	70,323.49	TFAA110008157
Total			4,736,745.37	

4.3 Efficiency and effectiveness of project's institutional arrangements

60. At the 18th Session of the FAO Committee on Forestry, FAO was asked to continue to collaborate with Member countries, CPF members, regional partners, including UN EC for Europe (UNECE), UNFFF and regional SFM criteria and indicator processes in global forest resource assessment. FAO worked closely with countries and forest assessment specialists in the design and implementation of FRA 2010. More than 900 contributors were involved, including 178 officially nominated NCs and their teams. It is evident that the EC Project was implemented as a collaborative partnership with a large number of stakeholders.

61. In principle, the project came into an organisation with a strong history of implementing large programmes therefore this arrangement was effective in reducing risks. Designing the project so that it fits within the FRA framework rather as a standalone project made the implementation particularly effective. This arrangement enabled the implementation of the project to benefit from pre-existing management structures. The project was designed with four modules intended to help build capacities and respond to user needs which are now reflected in the FRA Long Term Strategy

62. Within FAO, the context has continued to evolve and may continue to do so for the unforeseeable future. It is worth noting that there are a large number of initiatives and programmes within FAO that utilise remote sensing. The need for both spatial analytical capability (GIS) and remote sensing (RS) capacity within FOM and indeed across numerous departments within FAO especially those that deal with land resource monitoring and reporting continues to grow. Interviews with FAO staff working in FRA, UN-REDD, Environmental Assessment and Management Unit reveal that FAO, as an organisation, is still learning to be effective in institutional business unit coordination and strategizing particularly in resource mobilisation, sharing of infrastructure such as IT systems and human resources.

63. At the technical level, staffs have collaborated but more benefit could be realized by a deliberate corporate strategy to formalise the wider sharing of resource and expertise. Feedback from FRA staff suggests that the internal collaboration and coordination in FAO was somewhat limited in the beginning of the project but gradually improved over time. Other sections within FAO firmly believe there is need for more coordination. For instance, there is an opportunity to be more effective by increasing collaboration and coordination between FRA and the Environmental Assessment and Management Unit who have produced a large number of land cover and land use products from remote sensing including the Food Insecurity, Poverty and Environment Global GIS Database.

64. Noting that FRA remote sensing experts seem to be operating with limited IT hardware infrastructure, such a setup severely limits computing capacity. Going forward it would be necessary that the team has a substantially well-resourced hardware infrastructure if it is to retain remote sensing capacity and sufficiently collaborate with counterparts at JRC.

5 Analysis of Results and contribution to stated objectives

5.1 *Achievements at Outputs level*

65. The EC-funded project concluded on 31 December 2013. The ET has looked at how FRA implemented the project activities and achieved each of the planned outputs. The records and informants concur that FRA has completed all planned activities and carried out many others that enhanced project impacts. The performance of the project is a combined result of the well-established FRA programme, the countries' commitment, and the willingness of international and regional organisations to collaborate with the FRA on global reporting and forest monitoring and assessment. All countries have nominated national correspondents and alternates and many of them have participated in the global, regional and national trainings offered by FRA. FRA provided capacity development to a large number of remote sensing and national network experts to facilitate reporting on forests.

66. The basis for the ratings of project outcomes and outputs is an assessment of the logical framework, annual reports, related documents, and extensive interviews conducted at international, regional and national levels. Table 2 below summarises the output ratings.

Table 2. Ratings for outputs

Outputs	Description of Target	Status Comment	Evaluators Rating ⁶
Outcome: Well-informed and better decision-making related to forests and forestry based on harmonized, comprehensive, timely and accurate information generated by the Project			5
A Key Output A. Improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry			5
Output A.1	Reduced reporting burden on countries through increased efforts to streamline forest-related reporting	Substantially achieved Internet-based data entry & review system designed & developed. Improved FRA reporting and review process Information from FRA 2010 used by: - ITTO for its State of Tropical Forest Management 2011 and; - CBD for its Global Biodiversity Outlook 2010 - FRA 2010 data and storyline supplied for MDG report 2010 - Harmonised reporting framework progressed as planned & resulted in CFRQ - More than 66% of respondents through E-survey agree that the harmonised FRA reporting framework reduced the reporting burden on countries required for international processes	5
Output A.2	New knowledge generated and disseminated on status and trends in forested biomes/ ecological zones; deforestation rates and land use change dynamics, forest fragmentation and degradation; forest biological diversity; forests and climate and forest policy and institutions	Achieved Key Findings of FRA 2010 released in March 2010 & final report in October 2010 Summary report released on 30 Nov 2011 at side-event to UNFCCC in Durban Landsat & MODIS VCF data for 1990, 2000 and 2005 extracted and pre-processed for 13689 locations by South Dakota State University Results of RSS completed & disseminated at Asia Pacific Forestry Commission and with Russia Federal Forestry Agency New map of World's forest 2010 released by FAO in December 2010 Specific studies ⁷ completed include: - Forest degradation (<i>scheduled in project document</i>) - Forest Futures (<i>scheduled for FRA 2015</i>) - Trees outside forest (<i>scheduled for FRA 2015</i>) - Forestry, poverty and livelihoods (<i>scheduled for FRA 2015</i>) - Global ecological zones for FAO forest reporting (<i>scheduled for RSS</i>) - Global analysis of forests, ecological zones, biodiversity and protected areas for the year 2010 (<i>scheduled in project document</i>)	5
Output A.3	Updated information on more than 50 variables related to sustainable forest	Achieved 233 country reports were reviewed, finalized and	5

⁶ Delivery of Outputs: 1 very poor; 2 poor; 3 inadequate; 4 adequate; 5 good; 6 excellent

⁷ See more details on specific studies in section 6.2 Technical and managerial Efficiency

	management generated and disseminated	validated by end of 2009 and went online (planned number >200) CFRQ agreed with regional partners in Ispra Expert Consultation in 2012	
Key Output B. Increased capacity for forest assessment, monitoring and reporting S			
Output B.1	All countries are capable of making the best use of existing information for decision making at national-level and for reporting to the main forest-related processes, including the CBD, the UNFCCC, UNFF and the MDG process	Fully achieved. EC funding released in 2009 used for capacity building: - Five regional workshops (for FRA 2015) held in 2013 where 145 experts from 107 countries trained - 10 National Capacity Building Workshops held in 2013 involving 329 national experts - Global Meeting in Preparation for the FRA 2015 and the CFRQ held in 2013 with 120 participants - More than 55% of respondents to E-survey mention that FRA information is significantly used in the national decision making on forests in their countries - 58% of respondents underscore the relevance of FRA information to SFM in their countries	5
Output B.2	Developing countries throughout the world are able to set up a national monitoring system based on remote sensing in order to provide a valid baseline estimate of past deforestation rates and monitor future rates based on a common framework and agreed methodology and thus be able to benefit from a potential instrument of the UNFCCC to reduce deforestation in developing countries	Achieved - 20 sub-regional RS training workshops involving 206 experts in RSS from 108 countries (98% of the world's forest) around the world held between 2009 and 2011 - In order to secure wider awareness on lasting forest monitoring, FRA coordinated with UN REDD projects for stronger linkage between FRA process and countries' REDD+ initiatives - 63% of respondents to E-survey mention that RSS design and methodology are appropriate to their countries	5
Output B.3	Vibrant global and regional networks of forest monitoring specialists exist, sharing knowledge and experience on a regular basis.	Achieved All FRA National correspondents have been kept informed through regular newsletters and other FRA 2010 & 2015 related material In support to FRA programme, 05 FRA Advisory Group meetings held in 2009 (02); 2010 (01), 2011 (01) and 2012 (01)	5

67. Achievements of the output A.1, A.2-3 and B1, B.2, B.3 generally meet the expectations formulated in the project document and some of the results are included in the FRA 2010 Main Report. The RSS results were published separately before the end of 2010. The release of the results implemented under the EC Project was received positively largely because they were produced in a participatory manner. The FRA team was able to involve all countries and major participating stakeholders and partners such as JRC, ITTO, UNFCCC, CDB and others. This participatory approach seems to have particularly increased the sense of ownership of the FRA process and results at country and partner level.

68. On the global RSS component, the cooperation between FRA, JRC, SDSU, FIN-FAO Programme, and UN-REDD is an important sign of FRA's willingness to engage in global collaboration on forest cover monitoring using remote sensing techniques. The JRC scientists involved in the project underlined the complementarity between FRA and JRC for the mapping of forest area and forest area change in the 10 x 10km sample sites from 1990, 2000 and 2005. In preparation of capacity building workshops in each country, JRC prepared a User Manual for the land cover/land use change validation tool as developed in the

framework under the JRC TREES-3 project. The FRA team prepared training materials in English and French, and included data and software tools.

69. At the country level, the complexity and variations in land use and land cover change detection often requires local knowledge. Both the FRA and JRC teams took the right approach to collaborate and involve local remote sensing specialists to validate land cover land use change using the customised validation tool developed under the JRC TREES-3 project. For some countries, the RSS used pre-existing national forest spatial data to improve and validate the initial satellite image classification. The whole approach here is a good demonstration of an adaptive strategy and one that is likely to have desirable outcomes regarding knowledge transfer.

70. The collaboration with country experts could provide some lessons for internal coordination. While there is evidence that coordination and collaboration within the FAO Forestry Department has improved over the life cycle of the project, further coordination effort with other business units such as the Environmental Assessment and Management Unit of the NR Department of FAO, UN-REDD is needed that could enhance resource efficiency and subsequent sustainability of the project achievements.

71. A series of special studies were planned to be undertaken as part of FRA 2010 to generate new information on aspects where there is currently no or very limited information. The following five studies are included in the initial project proposal: Forest fragmentation; Forest degradation; Forests in protected areas; Trees outside forests; Forests and poverty. The project log frame proposed undertaking studies on: deforestation rates and land use change dynamics; forest fragmentation and degradation; forest biological diversity; forests and climate and; forest policy and institutions.

72. The project reports show that the FRA team completed the following studies on:

- Forest degradation, which is intended to provide elements for discussion aimed at reducing and mitigating the processes of forest degradation.
- Forest Futures which aims at providing insight of the projected global needs for food, feed, renewable energy and timber and their impact on forest resources and identify where competition for land will likely take place in the future.
- Trees outside forests which was recommended by Kotka V expert consultation.
- Forestry, poverty and livelihoods which aimed at measuring the extent to which rural people derive income from forests.
- Global ecological zones (GEZ) for FAO forest reporting prepared for FRA 2010 in the framework of the EC project. It was aimed to update the GEZ 2000 for RSS
- Global analysis of forests, ecological zones, biodiversity and protected areas for the year 2010 prepared on basis of interpretation of FRA data on biodiversity and protected areas.

73. There is some feedback that the value and need for the Forest Futures study might be questionable even though it is expected to provide a useful addition to FRA 2015. The objective of the study is to improve understanding of causes of forest area change and provide an informed vision of the forest future to help formulate and implement strategies that are more effective. For the FRA team, the rationale of the study is that: (1) FAO has stopped undertaking global forestry outlook studies; (2) FRA has always looked back in time – having a means of looking forward in time is widely agreed to be of high value and; (3) it provides a basis for discussion. The study brings together data from FRA, FAOSTAT, and

Global Agro-Ecological Zones to analyse historical trends and correlations. The FRA team put in substantial effort including several workshops to discuss forest area change modelling scenarios to be explored and how the outputs can be of use to say national REDD+ strategies and associated policies. These are useful studies but perhaps questionable in terms of prioritization. It would appear that potential results from such modelling can be somewhat controversial even though they will not be publicly released.

74. Following guidance from AG, the FRA team made some adjustments to the planned studies to focus on those studies that are aligned with the FRA long term strategy. In doing so, the team continued the improvement of the FRA programme to deliver scientific information and material that can be referenced by the developing countries for their own purpose. This shows the flexibility adopted for the project management.

75. On the overall, the FD senior management fully support the need for innovation in the FRA process. This support may not always be timely due to bureaucratic procedures but it is clearly demonstrable. These innovations implemented so far include the FRIMS for online country reporting and peer reviewing, the harmonised reporting framework, the CFRQ and the systematic global remote sensing survey. As highlighted by informants, these innovations are of relevance to the FRA users and the international and regional partner organisations.

76. The EC Project contributes substantially to both FRA 2010 and 2015 through the introduction of these new changes. Both internal and external stakeholders see these changes as necessary and positive and demonstrate the willingness of the FRA to be innovative and keep up with technological development. It is noted that FRA 2015 will utilise outputs from the EC project including the online process of reviewing and publication of country reports. Key findings of the FRA process will be released separately along with a desk reference with Global Tables; as well as a forestry paper summarizing the main results. There is also a plan to publish a special volume of Forestry Ecology and Management with thematic papers built on FRA 2015 data.

77. However, some informants highlighted that the contribution of the FD professional staff to the FRA has significantly decreased. The new approach to FRA implemented under the EC project relies more on external contributors and on less input from in-house professional staff⁸. It is the ET's view that this may degrade the usually strong ownership of FRA within the FD, even at the senior management level. Some informants wish to see some balance between in-house and external contributors for the development of the FRA products i.e. FRA main report.

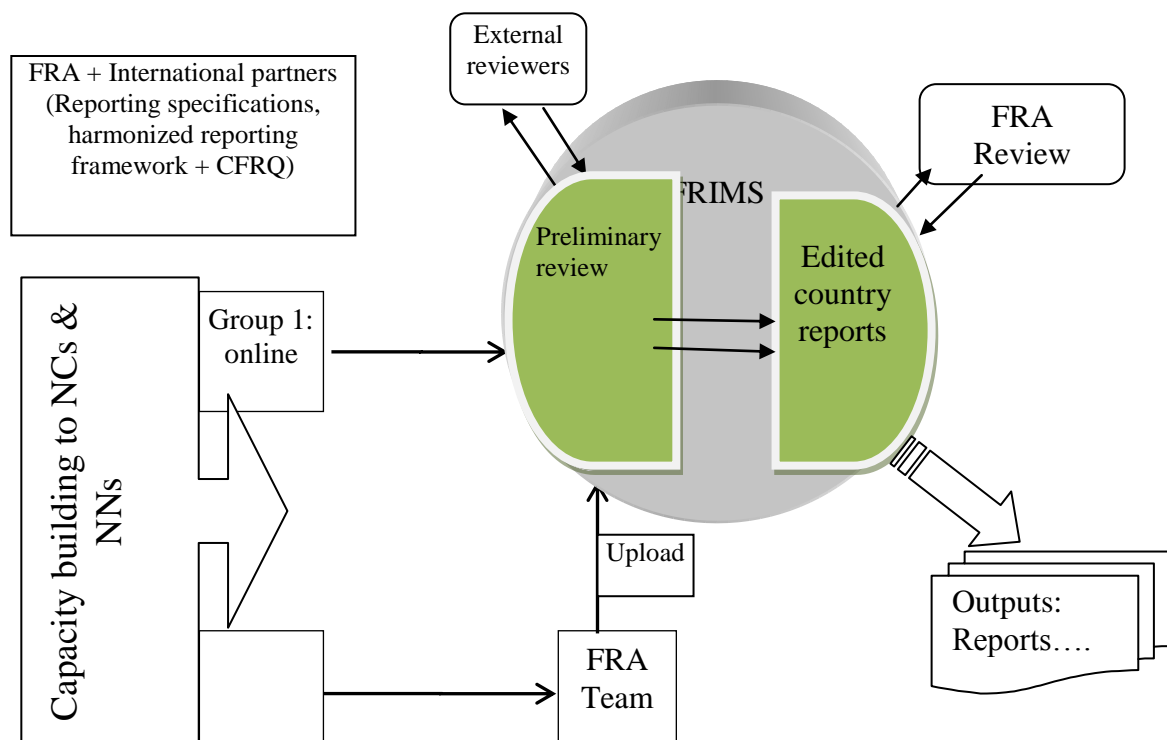
78. Some informants underlined that the new packaging of the FRA results introduced under the EC project does not appear to address regional differences that are usually required to facilitate regional debates on forests and forestry by the regional forestry commissions and the regional conferences. In the new approach, the eco-zoning for the RSS does not distinguish the dry land forests, which are particularly vulnerable. The new approach to FRA seems to amalgamate these classes into the other eco-zones. Dry lands cover about 42% of the global land area⁹.

⁸ FRA team indicated that FO inputs were solicited and used throughout the design process

⁹ Source: <http://www.un.org/en/events/desertificationDrylands> take up 41.3% of the land surface; <http://www.fao.org/docrep/t0122e/t0122e03.htm>

79. Funds of the EC project were used to develop FRIMS and train the national correspondents to FRA. This allowed that the country reports for FRA 2015 are submitted online in FRIMS (see Figure 2 below) by the NCs. The country reports are then subjected to peer-review involving experts from FAO and partner organisations like FE, MPWG, OCAF, ITTO and UNECE. For quality control, FRA designated one of its experienced officers as the Review Editor who has the duty to edit the external reviews of all country's reports. The ET understood that there is a group of countries, which are able to use the system and upload their reports to FRIMS. The other group of countries continue to send their Word report to FAO for uploading in FRIMS by the FRA team.

Figure 2: Illustrates the FRA reporting process including changes introduced through the EC Project.



80. Some external reviewers suggested further improvements to FRIMS to allow online exchange of comments with national correspondents and to interact with the authors of the country report more easily. Previously, FRA had one focal point per region to review the country reports and oversee quality control of results. The new approach is quite a departure from the previous one and it appears that it is not particularly smooth. Periodic review of this new FRA approach is highly recommended to adjust and improve the functionalities of the system where required. At the completion of the FRA 2015, a comprehensive evaluation of the changes introduced through the EC project is recommended.

81. The EC project provided valuable support to create and maintain vibrant global and regional networks of NCs and to include other national expert networks for improving the quality of national data and information. FRA NCs are officially nominated by countries to represent their national forestry agencies. Official nominations of NCs to FRA 2010 were received from 153 countries, including 119 developing countries – of which 10% percent are women. As of March 2014, the FRA records show that official nominations for FRA 2015 had been received from 170 countries, with Sixteen percent NCs being women. 114 countries

have nominated alternates to the NCs, of which twenty-one are women. All the NCs were invited to the global meeting to launch FRA 2010 and to the global meeting in Preparation for FRA 2015 and the CFRQ Reporting.

82. The NCs were invited to both the Global Meeting to launch FRA 2010 and the Global Meeting in Preparation for FRA 2015 and the CFRQ Reporting using the EC funds. In addition, most of the NCs participated in a number of regional and sub-regional training and RS interpretation review-and-revision workshops. The workshops were aimed at supporting the development of national capabilities in the fields of forest monitoring, assessment and reporting and improving the quality of national data submitted for FRA 2010 and 2015. The global network of NCs and the national expert networks are key to the success of the global FRA reporting process. These experts are the backbone of the countries' reporting to the international conventions and processes.

5.2 *Achievements at the Outcome level*

83. The outcome of the EC Project contributes to the FRA objectives and is part of a portfolio of projects contributing FRA's performance objectives under Organizational Result E1. The EC Project outcome is to facilitate well-informed and better decision-making related to forests and forestry, based on harmonized, comprehensive, timely and accurate information. This outcome overlaps FRA 2010 and FRA 2015 because of what has become a continuous process. Therefore, this evaluation may not give a full assessment of the achievement of this outcome.

84. However, Question 3 of the E-survey solicits information on the degree of use of FRA information for decisions and policy formulation. The responses indicate that the use of FRA information for decision-making and policy formulation might be low. Since policy formulation in developing countries is not a frequent event, the ET did not expect high number of responses. Hence, close to 55% of the respondents, indicate limited use of FRA information for decision-making and policy formulation. This indication might not be a universal view because of varying user needs, which the E-survey does not necessarily capture. On the contrary, the RSS is considered significant to highly relevant by nearly 50% of the respondents.

85. The foreseen indicators to capture the impact of the project outcome are:

- 100 referrals in national forest policies and programmes to the information generated as part of the FRA 2010 process.
- 20 referrals in international agreements and decisions to the information generated as part of the FRA 2010 process.
- Demonstrated support for effective forest monitoring systems.

86. These indicators could not be quantitatively measured by the ET during this evaluation. Most of the interviewed nationals from the selected countries confirmed the high relevance levels of the FRA for differing purposes. The contributions of the FRA programme towards improved forest assessment and reporting systems and on the long-term objective to better forest management is indisputable. Many of the interviewed informants pointed out that, over the years, FRA has proven its high relevance in addressing forest conservation and management issues, strategies to address climate change, poverty reduction, and social and economic development efforts. The EC Project has contributed to maintaining FRA relevance to all users through periodic reporting and enhanced awareness about the importance of

timely, accurate, comprehensive, and harmonized information for decision making related to forests and forestry.

87. At the global level, there are no statistics on the frequency of use of the information generated by FRA 2010 process for international agreements and decisions. The FRA team indicated that a quick research conducted for the completion of the final narrative report to the EC, proved that most of the international organizations dealing with forest resources make use of information and data produced as part of FRA 2010. Though some direct references can be found throughout international decisions and agreements, the influence of FRA-related data and information remains mainly indirect. The FRA partnership with international forest related organisations and processes seems to have improved the sharing of FRA generated information. The records show that the FRA 2010 information was used by:

- ITTO for its State of Tropical Forest Management 2011 and;
- CBD for its Global Biodiversity Outlook 2010
- MDG report 2010 fed by FRA 2010 data and storyline

88. The harmonised reporting framework and the CFRQ, produced as result of the successful partnership established and maintained during the project cycle by FRA with the international forest related organisations and processes, have broadened the use of the FRA information. According to international informants, the partnership has improved ownership of the FRA outputs at the global level and increased confidence on FRA information by all concerned stakeholders.

89. Making reference of past FRA user's survey, and on a question related to the use of FRA information, asked in FRA User and Potential User Survey, 84.6% of the respondents confirmed the use of such information. Although this is not a result of the project, it is indicative of the potential use of the information directly generated with the project support. In the same survey, 52.4% value the country reports in the FRA process and 66.7% value the global nature of the information.

90. The survey carried out for this evaluation informed that the 173 who responded to questions mentioned 134 different uses¹⁰ of FRA 2010 in national policies, legislations, programmes and other decision making. The 614 persons contacted did not respond to the questionnaire although they were notified three weeks in advance to provide responses. It is clear that as the number of responses goes higher, the number of references to uses would increase. The ET did not generate information on level of use of FRA 2010 information at the global level. The information provided by the FRA team on global use of FRA 2010 information was found edifying

91. The networking efforts of the project through the national networking workshops held in the selected countries to communicate the FRA process to other national forest stakeholders had apparent positive effect on improving awareness about the benefits of continuous national forest monitoring and reporting. As a direct outcome of the project, these efforts, unlike in the past FRAs, have seemingly contributed to raising countries' commitment to set up national forest monitoring systems through forest inventories, mapping and other sources and maintain information for comparison over time and to report to FRA.

¹⁰ There are respondents informed zero references. Others mentioned up to five different uses of FRA information at their country level

This was underlined by some respondents from the interviewed countries' representatives as well as in the responses of the E-survey. It was indicated by one country respondent that FRA is a revelation for the country's decision makers, because they rediscover the importance of their forests and the need to sustain them.

92. Other informants mention that FRA information promotes real time follow-up of changes and current situations and enables countries to identify the gaps and mobilize the needed resources for action. It should be noted that this type of feedback might well be based on the fact that some countries have very limited resources to undertake specific national data collection other than for the purpose of FRA. In contrast, other respondents perceive the impact of FRA 2010 information on sustainable forest management is low. That was attributed to the lack of dissemination of the FRA information. The capacity-building plan implemented by FRA under the project, particularly on remote sensing, has, according to the informants, increased interest of the countries in resources monitoring and its linkage with REDD+ initiatives.

93. In general, the indirect contribution of the project to a reduction in deforestation rates and increase in the area of sustainable forest management (i.e. the Overall Project Objective) is questionable. This is not due to the lack of effort but rather due to the many national and global external factors influencing the respective decision-making processes and debate on national policies and strategies.

94. One of the direct project outputs is the development of the RSS tool and its continual update by the JRC in coordination with the FRA RSS component. Based on the feedback provided by the end-users at national level, RSS presents valuable opportunity to improve project impact.

5.3 *Gender and equality*

95. For the purpose of this evaluation, gender reporting is assessed in the context of FRA Programme rather than solely on the EC project. FRA 2010 reporting captures gender mainstreaming as outlined in the FAO Strategic Framework (2010-2019), which sets a target for FAO to collect gender-disaggregated data on employment in public-funded forest research centres and graduation from forestry educational institutions. The capacity building workshops reports and evaluation questionnaires explicitly elicit gender-disaggregated data for workshop attendance. For instance in 2010, the FRA team conducted 13 workshops under the RSS attended by representatives from 72 countries. There were 140 participants with 20% female. As indicated in section 5.1 above, the FRA records show that official nominations for FRA 2015 had been received from 170 countries, with 65% NCs being women. 114 countries have nominated alternates to the NCs, of which twenty-one are women.

96. The EC Project observed the need for providing equal opportunity for men and women through the composition of the project team and capacity building in developing countries. The list of participants attending the capacity building workshops comprises a reasonable balance of male and female participants.

5.4 *Capacity development*

97. The EC Project provided funding for substantial capacity building through a series of workshops. The workshops focused on the validation and learning to use the RS data and classify images, validate satellite imagery interpretation with local land information and

change detection results. The countries interviewed on this aspect expressed satisfaction with the workshops and material provided. In fact, representatives from five sampled countries request FAO to conduct similar training workshops regularly in the future. However, based on substantial feedback received from stakeholders from this sample of countries, ITTO, CDB, and the E-survey results, it is appropriate to state that the capacity building conducted by FAO has had a catalytic effect on a number of levels. This provides an indication FRA and EC project's contribution towards the stated outcome.

98. Capacity building is one of the pillars of FRA programme. Past capacity building efforts provided training for NCs on FRA reporting. The EC project has increased this effort by providing additional funding for supporting countries to produce FRA reports and to set up forest monitoring system by including remote sensing. The project has therefore allowed FRA to broaden the scope of its plan of capacity development, which implementation was supported by the full-time regular programme staff on capacity building for over 1.5 years as well as by all FRA professional staff who participated in over 20 workshops. The aim is to improve country capabilities to make the best use of existing information for decision making at national level and to report to the conventions and processes, including the CBD, the UNFCCC, UNFF and the MDG process. It also contributes to increasing the ability of developing countries to set up national monitoring systems combining remote sensing to provide valid baseline estimates of past deforestation rates and monitor future rates based on a common framework and agreed methodology.

99. About 43% of the respondents to the E-survey consider that the training provided by FRA on remote sensing using EC project funds is "significantly highly useful" to their countries for setting up national forest monitoring system. About 63% consider the RSS methodology delivered during the trainings is appropriate for their mapping work to estimate past deforestation rates and monitor future rates.

100. The EC project contributed to support FRA to design and implement a training plan that has reached 206 national remote sensing experts between 2009 and 2011 from 108 countries (covering 98% of the world's forest), 145 experts from 107 countries for FRA 2015 and 329 national expert networks from 10 countries. These activities were achieved despite the fact that full funding was not made available to the FRA programme. For a multi donor project of this nature, it necessary to ensure the flow of funds is timely to enable effective delivery of outputs. Ensuring the funds to be available in a continuous manner perhaps requires senior management to be more aggressive in mobilising adequate funds on time.

101. The project helped develop RS tools for image processing and interpretation and for land cover and land use change validation. However, feedback from some countries indicates that the delivery of customised training required to use the RSS tool was inadequate. This might affect the full use of such tools as intended. Consequently, those countries with limited resources are unable to take full advantage of the tool capabilities to generate detailed country specific data suitable for domestic planning and monitoring of land use. It is noted that the FRA team is very conscious of the need to synergize with ongoing efforts e.g. UN REDD, NFMA, and others to deliver capacity-building efforts. This should be encouraged and formalised within the FD in order to increase the use and impact of organisational normative products. Countries like Laos and South Sudan expressed the need for more focused capacity building and follow up with projects.

5.5 *Partnerships and alliances*

102. The governance mechanism for the EC project naturally falls under the overall governance framework of the FRA process as stated in the project design document. While seeking feedback, both internal and external informants were quick to point out the need for better strategic alignment of the FRA strategy to fast-evolving global resource assessment techniques – particularly remote sensing and image processing techniques and publications.

103. Collaboration with JRC is both pragmatic and strategic because JRC has been active in monitoring tropical forest for over 20 years with access to support by the European Space Agency (ESA). The RSS dovetails neatly into the TREES¹¹ and FOREST¹² projects which by 2007 had already gone through several phases of implementation with an ongoing objective of increasing the accuracy of estimates of forest cover change at pan-tropical scale. A significant benefit from this partnership with JRC is the joint publication of rigorous scientific material, production of user manual and LULC change validation tools in addition to several peer reviewed journal papers¹³. Further collaboration with the likes of US Geological Survey¹⁴ and South Dakota State University (SDSU). The collaboration resulted in a world forest map reflecting forest cover in 2010 and historical trends in forest land-use change, combining data from the RSS with data from the Global Agro-Ecological Zoning (GAEZ) agricultural assessment. What might be useful is for the FRA team to consider ways to describe the accuracy of FRA map products as a way of identifying areas of improvement.

104. The outputs from FRA are important as normative products that are gradually being recognized as potential standards that could harmonize global forest resource assessment and reporting by different countries. FRA has succeeded in establishing close partnership ties with Forest Europe, ITTO, MPWG, OFAC and UNECE. This partnership produced the Collaborative Forest Resources Questionnaire (CFRQ), which according to the results of the E-survey has significantly reduced the country's reporting workload.

105. More than 66% of the respondents agree that the harmonised FRA reporting framework reduced the reporting burden on countries to the international processes. However, there is strong feedback that there are other evolving initiatives such as Google, and Group on Earth Observation that need to be taken note and opportunities for collaboration identified. The RSS gives FRA a considerable comparative advantage because it combines field verification, which strengthens the validity and reliability of forest area change information. FAO FRA has incomparable access to local knowledge that can be used to validate image interpretation and transform land cover into land use as per FRA reporting requirements.

106. During this evaluation, the ET held several discussions on what other potential partnerships should be considered by FRA. In addition to having periodic multi-purpose forest inventories, a key determinant for successful global forest monitoring is access to free medium to high-resolution satellite imagery complimented by high-end computing capacity

¹¹ <http://gem.jrc.ec.europa.eu/index.php/pages/GlobalForestResourceMonitoring/4>

¹² <http://forest.jrc.ec.europa.eu/forest-mapping>

¹³ Potapov, P. , Hansen, M. C. , Gerrand, A. M. , Lindquist, E. J. , Pittman, K. Turubanova, S. and Wilkie, M. Løyche. (2010) 'The global Landsat imagery database for the FAO FRA remote sensing survey'. International Journal of Digital Earth. <http://dx.doi.org/10.1080/17538947.2010.492244>

¹⁴ <http://www.usgs.gov/>

to develop wall-to-wall land use and land cover maps. However, this requires a global concerted effort.

107. There are already a large number of initiatives focusing on developing periodic global land cover maps through automated techniques. For instance, the collaborative effort led by the University of Maryland with Google and NASA, or WRI products should be acknowledged and embraced as an opportunity for further collaboration. The Norwegian Space Agency with support from Norwegian development aid programme is yet another institution that has significant interest in seeing greater global effort towards understanding land use and land cover change dynamics. There are no particular or specific details that can be provided by this evaluation except noting that FRA and indeed FAO would benefit by looking further at opportunities for strategic alliances including with the private sector that directly address areas to strengthen the role of FRA.

108. Looking forward, satellite image providers such as NASA (Landsat), SPOT, Blackbridge (RapidEye) to name a few and some that are in the pipeline such as Sentinel or potentially Planet Labs provide an impetus for a stocktake on strategic alliances and partnerships to enhance FAO's objectives for FRA.

6 Analysis by evaluation criteria

6.1 *Relevance to needs*

109. Users of FRA range from academics, research institutions, governments and public institutions. Within FAO, FRA is an important programme providing important information for international process such as UNFCCC, UNFF, CBD, Montreal Process and others. The needs vary from country, regional to global level and different users have specific requirements such as temporal characteristics to determine trends over time. Some of these needs are well elaborated in the 2010 Auto Evaluation of FRA (Jankovic, 2010).

110. The inception of the EC Project is undoubtedly relevant to enhancing FRA in producing high quality global information and producing a global forest assessment. As noted in previous evaluations, FRA log frames, and international forum discussions, forests have a fundamental role to play in mitigating the effects of climate change. FRA provides perhaps the most comprehensive global description of the state of forests.

111. Most developing countries have limited forest-monitoring systems based on established national forest inventories insufficient for most common needs such as international reporting, REDD+ mechanism and basic policy formulation. The E-survey informs that large number (>50% of respondents) of countries base their national reports to FRA wholly or partially on expert opinion. Hence, the capacity building to support countries develop better systems for data and information gathering is particularly relevant.

112. The FRA work, aiming at reducing the reporting burden on countries to the international conventions and processes, was commended by the representatives of the international partners interviewed for the evaluation as well as by respondents to the E-survey. The E-survey informed that the harmonized FRA reporting framework helps reduce the reporting burden on countries, increase harmonization of definitions, improve data quality and enhance communication of results. In particular, the measures to introduce the online

country reporting process through FRIMS enable some efficiency gains. General feedback from respondents is that the FRA is necessary but the reporting process is burdensome on already over-stretched resources in most developing countries. Therefore, any improvements that reduce such a burden are welcome.

113. Moreover, they added that it also helps improve consistency of national reporting to different international agencies. One respondent reported that the existence of different international processes and the improved harmonization among them promote establishment of panel of experts at the national level, improve efficiency in the process of reporting to different conventions and processes. The majority of informants who participated in the national networks and remote sensing workshops from selected countries namely Ecuador, Nepal, Uganda and South Sudan have all underscored the relevance of both the harmonised reporting framework on forests and the streamlining of reporting using the produced Collaborative Forest Resources Questionnaire

114. According to the informants, the pre-filled reports seem to have also contributed to the reduction of the reporting burden on countries. There is wide recognition that the work done on harmonisation has led to certain level of reduction of reporting burden, since the same information in the CFRQ can now be used for reporting to many international conventions and processes. However, some informants voiced the need to see FRA deploy more effort in the area of harmonisation of the forest related terms and definitions.

115. There are signs that FRA has provided appreciated leadership in establishing partnerships on countries' reporting on forests and in coordinating the harmonisation process of forest related terms and definitions. The representatives of OCAF, MPWG, CBD and ITTO consider that the collaborative work so far accomplished by different partners should be followed up and consolidated under the FRA leadership.

116. Remote sensing combined with field data is particularly suitable to collect information relating to these parameters of forest state and change. The question of relevance is twofold. On the one hand, remote sensing products and indeed FRA products have to be relevant to the FRA objectives, and on the other hand they have to be relevant to the needs of participating members, partners, and countries. Respondents to the E-survey have conflicting views about the relevance of the RSS to national needs. For some the design and methodology are not suitable for national forest monitoring systems. But, more than half of the respondents consider that FRA developed suitable approaches to the RSS that can be used at the national level with some adaptation. It can guide application of remote sensing for forest cover/land use mapping. One respondent from a large size country mentioned that RSS provides an exciting opportunity to better understand alternate sources of evidence to support the 'Multiple lines of evidence' approach.

117. At the country level, the EC Project capacity building through remote sensing workshops is well appreciated by participants and by countries as reflected in the responses to E-survey, but there are still sentiments that countries are still left with inadequate resources such as software and hardware to continue the work. This is in no way an issue for FAO but rather a broader issue on national circumstances regarding general capacity and development. FRA is gradually and collaboratively producing important normative products in the form of remote sensing techniques and methodological approaches that will enable harmonization of approaches

118. A number of informants from the five countries view the RSS as an opportunity to improve their national level LULC data. However, they pointed out that access to remote sensing imagery and resources to process the data is limited and expected FAO to provide such resources and assistance. Such expectations are largely in developing countries and are likely to be a result of misunderstanding of the objectives of FRA.

119. To overcome some of the limitations, the design of the project includes a substantial capacity-building component that focuses on increasing the understanding and benefits of FRA data. The provision of training material and ongoing support to national networks has enabled progressive improvement in commitment and understanding of the benefits to the participating country hence enabling FRA to remain relevant.

6.2 Efficiency

120. FRA team has made remarkable effort to put in synergy all available funds for the implementation of the project within its broad context the FRA programme that has been guided by the FAO Strategic Objectives, the FAO strategy for forests and forestry and the long-term strategy for FRA. This has allowed distribution of the employed staff among the programme priorities and tasks and its efficient use.

121. In order to cope with the heavy workload of the FRA programme, which encompasses the work plan of the EC project, with a significantly reduced critical mass compared to that available for FRA 2000 and FRA2005, the FRA team introduced important innovative measures to the FRA approach. The measures allowed part of the work to be done online by the NCs at the country level including uploading their reports.

122. The technical approach for the project and management are considered effective and instrumental in the achievement of planned results. The technical and management approaches followed to deliver the outputs for each project module are described:

- Harmonisation of terms and definitions and streamlining of reporting: A new Collaborative Forest Resources Questionnaire was developed within the framework of the partnership forged with international forest related partners including CBD, FE, MPWG, OCAF and ITTO. This was done with the intention of reducing forest reporting burden on countries. The informants from the international organisations see these partnerships as the right choice for FRA. The informants from the selected countries confirmed that the CFRQ has positive effect on the reduction of the reporting. The outcome of this collaborative measure needs to be evaluated at the end of FRA 2015.
- Strengthening the capacity for forest reporting: FRA devised and implemented a robust capacity building plan to the NCs and to experts in NNs for country reporting and to national remote sensing specialists for the RSS. The activities organized during the national workshops were divided in two main subsets: “Integration of RS into FRA 2015 national report” and “Strengthening of FRA 2015 national networks”. The sample of people talked to during the interviews for this evaluation have all commended FAO for outreaching countries and training wide range of national experts related forest resources monitoring and information management as well as for the quality of the delivered training. While the training of the NCs included all countries in preparation of FRA 2015, the training of the NN covered 10 pilot countries and remained limited to the level of available funds from the EC project. FAO adopted the following criteria to select the target countries for national

training workshops of NN, i.e. relatively important amount of forests; possessing relatively old or out of date forest inventory or RS data; and receiving no support from other programmes, or where it was possible to create synergies and joint efforts with other programmes. The need for this type of training is obviously high in many other developing countries.

- A global remote sensing survey of forests: FRA strategically implemented the RSS and chose to release a summary report on the Survey on 30/11/2011 at a side-event to the 17th United Nations Framework Convention on Climate Change (UNFCCC) in Durban, South Africa. A new map of the World's Forests 2010 was also released in December 2011. Training material for remote sensing interpretation is available in five languages (English, French, Spanish, Portuguese and Russian) and distributed to more than 204 people. Training materials and user manual have been produced by FAO in collaboration with EC JRC for joint workshops. Major effort was undertaken through 19 workshops (9 in 2011) held around the world to get input and review from 206 experts from 108 countries representing over 98% of the world's forest. The complete results were released as FAO Forestry Paper #169 (FAO & JRC, 2012) and updated with data for the reference year 2010 at the International Day of Forests in March 2014¹⁵.
- Support to networking activities: According to informants, the approach followed by FRA for the networking was efficient. Three or four issues of the newsletter FRA 2015 News per year were prepared in English, French and Spanish by the FRA Secretariat, and disseminated to more than 780 readers through the mailing list subscribers, mainly NCs, forestry institutions and all interested partners
- Special studies: the FRA team opted to be open for guidance by the expert consultations and the Advisory Group. It took the decisions to prioritise the special studies according to needs. Although this not as planned in the project log frame, it seems that FRA took the right decision.

123. The delivered outputs under the EC project contributed to the achievement of the foreseen results. The agreement on the new CFRQ has the potential of achieving the principle of “collect once use many times” for the data collected by countries.

6.3 Sustainability

124. The EC project was embedded in the FRA programme, which has been undertaking assessments for more than six decades. Therefore, the sustainability of the outcomes of the project will depend strongly on the way the programme will evolve in the future and if the programme will capitalise the achievements of the project. For the purpose of this evaluation, the basis for assessing the sustainability is based on the following four modules defined in the project:

- Module 1: Harmonization of terms and definitions and streamlining of reporting
- Module 2: Strengthening the capacity for forest reporting
- Module 3: The FRA 2010 Remote Sensing Survey
- Module 4: Special studies

¹⁵ <http://www.fao.org/forestry/fra/remotesensingsurvey/en/>

6.3.1 Module 1: Sustainability - Harmonisation

125. Harmonisation is the key factor contributing to the reduction of the reporting burden on countries that have increasing obligations to report on forests and forestry to a growing number of international processes. The review of use of the project budget shows that the allocated funds were adequately used by FAO to support its work on harmonisation of the forest related terms and definitions, capacity building and the global remote sensing survey. Harmonisation has the potential to reduce significantly the reporting burden on countries if continued and developed further. This is a remarkable achievement today. However, what will happen in the future and what measures FAO has taken to consolidate the partnerships around it and to widen its scope and users remains unknown.

126. Sustainability of the projects' achievements depends in the first place, on the stakeholders' ownership including the countries and the international partner organisations who participated in the design and implementation of the project work plan. It will also depend on how the forged partnerships under the project will be maintained and on how the built capacity in the countries will last and be used for the purpose it was developed.

127. FAO FRA is not the only player in world forest monitoring. The informants talked to from CBD, Montreal Process and ITTO expect that FRA will continue to play the lead role. FRA is, therefore, called to work with more partners and intensify its efforts to develop and operationalize strategic partnerships including those in the private sector.

128. Since partnership is one of the overarching principles of FAO's vision and strategic plan, FRA will likely continue strengthening the foundations of the forged partnerships. However, experiences have shown that corporate principles or sectoral strategic orientations are often surpassed by individual approaches. The FRA team and above it the senior management of the FAO FD are called to keep working on partnership with other forest related organisations and processes as one of their highest priorities.

129. In order to avoid weakening the developed partnership under the EC project, FRA and the FD need to adequately execute its LTS to prioritise development and maintenance of the partnership with international and regional organisations and processes. This would strengthen the package of changes introduced to the FRA process like the CFRQ, the country report review, and the diverse international inputs to FRA.

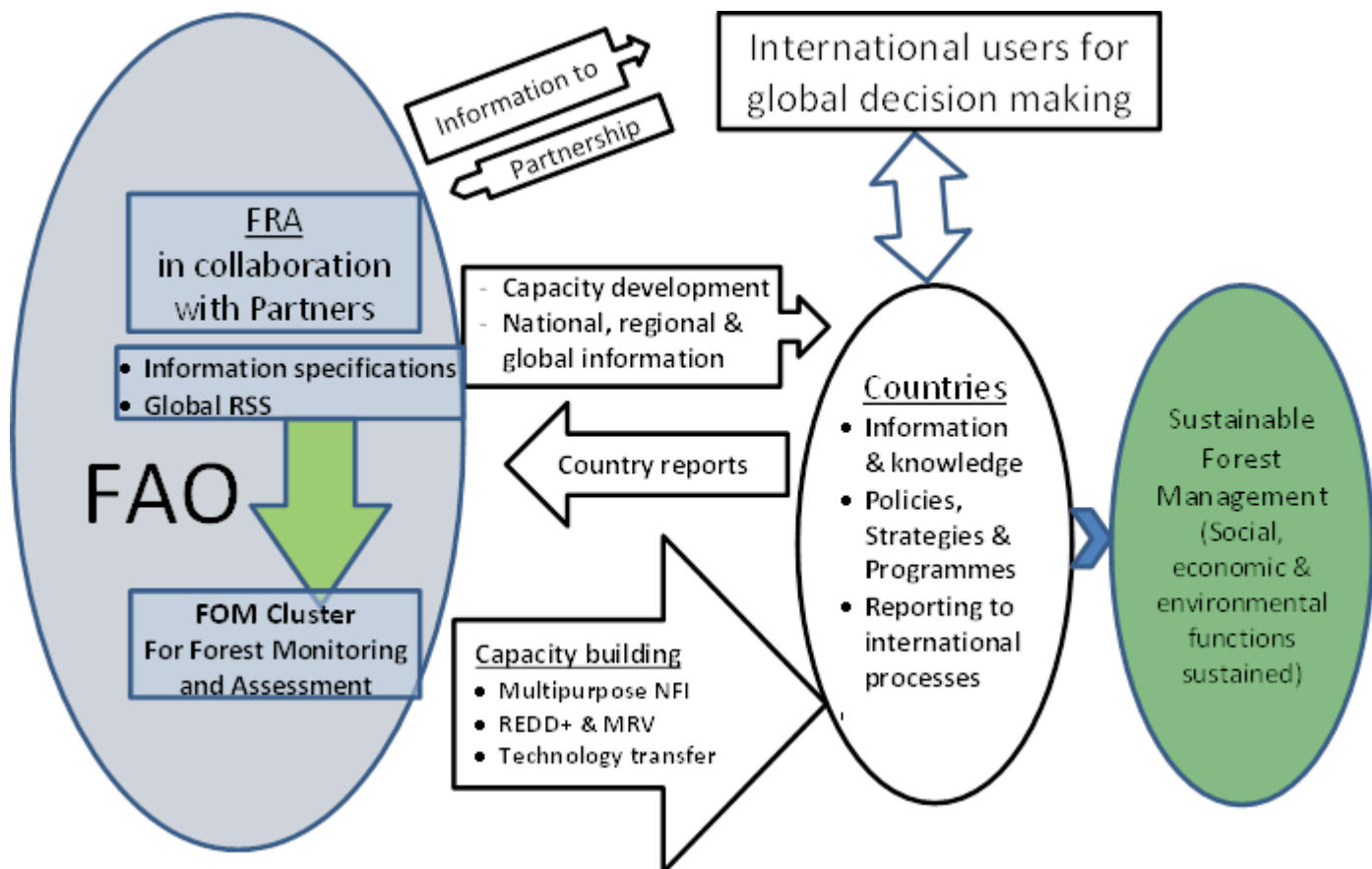
6.3.2 Module 2: Sustainability - Strengthening the capacity for forest reporting

130. During the life cycle of the project, the in-house collaboration and coordination between the different units dealing with forest related monitoring and assessment i.e. NFMA, UN REDD, FAO-Finland programme and BMU, has improved to some extent, according to informants from the FD. However, considering the views of the same informants, this is still insufficient. With the exception of the network of national correspondents to FRA, the strengthened capacities i.e. in remote sensing and forest monitoring in some developing countries, will not likely last long if FRA and the programmes in the forest Monitoring Cluster are unable to find ways to engage them in field activities by other initiatives of forest resources monitoring and assessments.

131. The plan of the FD to cluster the existing four programmes working on forest monitoring (NFMA, UN REDD, FAO-Finland and BMU) is well received by some informants. Some informants have underlined the need for more integration between the

programmes within this cluster. The FD could consider developing a clearer long-term vision for FAO capacity and infrastructure of support to countries in the area of forest resources monitoring and assessment. The FRA plan of capacity building for the NCs and other national experts integrating remote sensing has the potential to support other initiatives in the field if closely coordinated with the other FD programmes. Complementarity and close coordination between FRA and forest monitoring cluster will largely contribute to the sustainability of the project results. Figure 3 the dependency between the stakeholders of forest resources assessment.

Figure 3: Stakeholders of forest resources assessment & Actions towards Impact of SFM



6.3.3 Module 3: Sustainability - The FRA 2010 Remote Sensing Survey

132. As part of the FRA Programme, FAO and its member countries and international partners undertook a RSS for obtaining information on the distribution of forests and on the changes in forest area over time at regional, biome and global levels. Beside the validated global tree-cover map using time-series imagery from MODIS, the RSS undertook land use mapping of a global systematic sample of Landsat images from 1990, 2000 and 2005. FAO and JRC did this in close collaboration with countries. FAO and JRC produced tools for image analysis widely disseminated to countries during the training of national remote sensing specialists.

133. The joint experience of FRA and JRC on the RSS was praised by all informants from FAO and JRC alike who see that the RSS should continue because of its valuable contribution in improving the information of the state of forests and land use change dynamics and in establishing trends of deforestation. For those two parameters, the quality of

the generated information through the national reporting process cannot be paired by that obtained from RSS. Continued collaboration between FRA and JRC and In-house synergies between the forest monitoring programmes of the FD would increase the chance for sustainability.

134. A direct achievement of the EC project is the establishment of a remote sensing position within the FD. Perhaps this is an indication that the FD is seeing the need to sustain the RSS in the Department. Remote sensing contribution to FRA is paramount as it improves significantly the quality of information at the global, regional and eco-zone levels and potentially at the country level. It will continue to be an important part of FRA. However, sustainability will depend on FAO's ability to continue fostering strategic and operational partnerships with EC JRC, Countries, Academia and Researchers, private sector and others.

6.3.4 Module 4: Special studies

135. The scope of achievements of the FRA programme with the help of the EC project, despite the limited available funding, is commendable. The Forest Futures study, being an outlook prospect, is addressed among FRA priorities. It combines the projected global needs for food, feed, renewable energy and timber envisions their impact on forest resources and identify where competition for land will likely take place in the future. The findings of this study will likely influence to various extents the decision-making at the global, regional and national levels although it may generate controversies.

136. Although there is already a plethora of studies on the subject, the Forest Futures study will contribute to further insights on reduction in the rate of deforestation and hence loss of carbon stocks in forests; and increase the area of forest under sustainable forest management worldwide. Some informants from the FRA team consider that this type of product adds to the legacy of the FRA programme and contributes to its sustainability.

137. One issue pointed out by some informants in the FD in relation to sustainability of the project results is the packaging of the FRA 2015 results especially from the country reporting process and RSS. It is seen by these informants that it will deprive the regions of information on regional specificities needed for the debate on forestry issues in the FAO regional statutory bodies like regional forestry commissions and regional conferences.

6.4 Impact

138. The impact of the project should be viewed in the context of FRA Programme achievements and performance objectives in relation to Organizational Result E1. There is increasing positive view of the series of changes (CFRQ, FRIMS, RSS, peer-review of country reports) introduced to the FRA process funded through the EC Project. These changes reflect thinking that originates from as far back as FRA 2005. It is a progressive and continuous improvement process that the ET believes will enable FRA to remain relevant to the evolving needs of stakeholders.

139. A recurring theme from interviews with informants in FAO and external stakeholders is that FRA is an important source of information for a wide range of needs spanning country level to global level. Its use has continued to widen through collaboration with NCs, Government officials, international organizations, and academia. More importantly as highlighted in the 2010 Auto-Evaluation, FRA's expansion towards a more holistic scope towards closer alignment with international reporting and conventions (UNFCCC, UNFF,

CBD, ITTO, UN-REDD/REDD+) will most likely have a bigger impact on its role in informing global policy discussions and negotiations. This will be particularly visible with progressive harmonisation of forest related terms and definitions as well as streamlined reporting on forests. In this regard, the contribution of The EC Project can only strengthen these components through efficiencies, enhancing data quality, consistency and completeness. The demand for accurate data is high but this will take a long time to address. However, the EC Project is an important step in working towards improving the data quality and coverage.

140. The capacity building efforts to strengthen the National Correspondent network to improve and increase country capacity to report to FRA are strategic but will need to be sustained. Understandably, the shortening of FRA reporting intervals to 5 years making it a continuous process contributes to retention of knowledge. However, in most developing countries, programme continuity is always a challenge due to competing priorities, lack of resources and limited predictable funding.

141. The use of FRA information will depend on its ability to meet increasingly diverse user needs. To meet the user needs FRA will need to continue exploring ways to remain relevant and contemporary in fast evolving global environment concerning forestry resource assessment and reporting methods. The improvements introduced to the country reporting process including the online reporting and the peer-review of country reports have significantly improved integration of the FRA process in its international context.

142. The EC Project contributes to FRA by enabling departure from the old approach which is less collaborative. The collective efforts of the FRA team, the international, regional partners, and the countries complement each other and undoubtedly increase the visibility of FRA and its ownership by all stakeholders. This is likely to enhance contribution to sustainable forest management in the world.

143. The impact of the contribution of the EC Project will also depend on the ability of the FD to consolidate its comparative advantage and increase the visibility and use of normative products. There are opportunities to enhance the long-term impact of activities implemented under the EC Project. The introduction of the RSS is an important step for the FRA Programme because it is enabling FRA to have a much broader coverage and spatial temporal analysis capability besides improving significantly the quality of information on forest area and area change. However, without necessarily accentuating the negative, the strategic role of remote sensing within FAO is still evolving and senior management are yet to recognize fully the multi-purpose potential of the technology.

144. A number of Programmes within FAO are using remote sensing including NFMA, UN-REDD, Environmental Assessment and Management Unit of the Natural Resources Department, the FAO-Finland Programme, the ICI_BMU REDD project and several other sections. Each of these programmes has invested substantially in human resources and infrastructure as well as having developed a large pool of normative products. It is evident that staff in each of these programmes makes an effort in interacting and exchanging knowledge, but an organisational perspective and strategic intent would result in better utilisation of resources and increase efficiencies.

145. The achievements of the EC Project will contribute to strengthening countries' capacities for forest monitoring and reporting, improving national data quality and reliability, enhance confidence in FRA information and ownership of FRA products by all stakeholders.

All these gains will influence positively the processes of decision making on forests at the global and national levels and hence contribute positively towards sustainable forest management.

146. Globally, the role of remote sensing in natural resource assessment has perhaps evolved much faster than FAO's ability to respond and keep up with the fast pace of technological innovation. In saying so, the EC Project presents an opportunity for FAO to forge necessary strategic alliances with a selection of international remote sensing institutions, academia and if possible the private sector. In addition to European Joint Research Centre (JRC), USGS, University of South Dakota, there is an increasing level of interest across different bilateral and multi-lateral support programmes to intersect different remote sensing products in order to produce accurate global land use and land cover products with frequent temporal reporting.

147. 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 sustainable forest management in the 21st century.

148. FRA can help shape policy making processes and, inform and encourage forest-related investment decisions from a wide range of actors, including governments, private companies, NGOs and donor organizations. 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. Implementation of the LTS will begin as described throughout this Implementation Plan.

149. The intervention logic arising from the EC Project and FRA is yet to yield substantial results with respect to impact. However, because the outcomes are more likely to be visible at a country and sub-national level, the pathway from outcome to impacts will remain indirect because FRA's outputs are largely global. Substantial effort at the country level would be required to reduce deforestation through targeted policy and socio-political interventions focused at the agents and drivers of deforestation. The long-term impact of the capacity building carried out as part of the EC Project largely depends on the capacity of individual countries to utilise the results and make use of the normative products provided through FRA. Perhaps the positive feedback about the contribution of the FRA process towards national data collection indicates the potential impact of the capacity building effort.

150. To increase the potential for achieving the stated impact, the capacity building strategy requires substantial human and financial resources at the country level but of course, FAO is unlikely to have such resources for every country. It is therefore necessary to continue improving and promoting a strategy to increase the use of normative products through strategic partnerships, better institutional coordination and networking. It is also necessary that the FRA normative products remain relevant in light of emerging international developments such as UN-REDD, REDD+, and other multi-lateral initiatives.

151. As a flagship normative product of the FAO, FRA information will continue to be so in the future as long as FAO continues to provide sufficient regular programme funding. The EC project has supported the implementation of FRA 2010 and FRA 2015 process through the inclusion of the RSS, FRIMS, the strengthened countries' capacities and the special studies.

152. The important strides accomplished by FAO in renovating the FRA process by introducing FRIMS, fostering global partnerships, establishing the CFRQ, implementing the global RSS and strengthening national capacities are considered by many informants as important FRA measures towards making impacts on SFM. Most FAO staff interviewed for this evaluation stressed that these measures are meant to last for future FRAs. These measures have clearly strengthened FRA to continue its endeavour to improve the quality and reliability of the country data and make it as valuable global public good at the disposal of decision makers in the countries and amongst the international community. The indirect impact of the EC project on SFM is apparently high.

153. However, as some informants pointed out, the new packaging of the FRA results introduced under the EC project has the potential to affect negatively the intended impact. This is because the new packaging of the FRA products does not appear to address regional differences that are usually required to facilitate the regional debates on forests and forestry by the regional forestry commissions and the regional conferences.

154. There are opportunities to enhance the long-term impact of activities implemented under the EC Project. The introduction of the RSS is an important step for the FRA Programme because it is enabling FRA to have a much broader coverage and spatial temporal analysis capability besides improving significantly the quality of information on forest area and area change. However, without necessarily accentuating the negative, the strategic role of remote sensing within FAO is still evolving and its potential as a multi-purpose technology yet to be fully recognised at the executive level.

155. Globally, the role of remote sensing in natural resource assessment has perhaps evolved much faster than FAO's ability to respond and keep up with the fast pace of technological innovation. In saying so, the EC Project presents an opportunity for FAO to enhance necessary strategic alliances with a selection of international remote sensing institutions, academia and if possible the private sector. In addition to European Joint Research Centre (JRC), USGS, University of South Dakota, there is an increasing level of interest across different bilateral and multi-lateral support programmes to intersect different remote sensing products in order to produce accurate global land use and land cover products with frequent temporal reporting.

156. Fostering new strategic partnerships as the global context evolves will enable FAO maintain the comparative advantage of FRA.

Conclusions

157. FRA has relied on a combination of methodologies to collect country forestry data. Traditionally, paper-based questionnaires formed the main approach. It is evident that the evolution of FRA is a continuous process and the EC Project falls within that framework. Continuous evolution is essential particularly in the context of increasing demand for timely, frequent, temporal, and high quality data to support efforts to mitigate ever increasing challenges from climate change and poverty alleviation

158. The FRA is an important information source for global efforts to sustainably manage forests, reduce the greenhouse gas emissions and advance other international initiatives related to sustainable forest management. The EC Project is a welcome addition that has contributed and strengthened components of FRA and carries on the momentum to continuously improve FRA. Its use has continued to widen through collaboration with NCs,

Government officials, international organizations, and academia. More importantly FRA's broadening of scope and increasing closer alignment with international reporting and conventions (UNFCCC, UNFF, CBD, ITTO, UN-REDD/REDD+) will most likely have a bigger impact on its role in informing global policy discussions and negotiations. This will be particularly visible with progressive harmonisation of forest related terms and definitions as well as streamlined reporting on forests

159. In this regard, the contribution of the EC Project can only strengthen these components through efficiencies, enhancing data quality, consistency and completeness. The demand for accurate data is high but this will take a long time to address. However, the EC Project is an important step in working towards improving the data quality and coverage

160. The FRA team is clearly conscious of the need to respond to changing global context. The Forestry Department has been responsive in a way, but greater strategic assessment and commitment, strategic partnerships and investment in reasonable infrastructure to handle increasing FRA data particularly, remote sensing, are necessary to increase relevance and sustainability.

161. The EC Project certainly has a catalytic effect in reducing the reporting burden and increase capacity for quality data collection in developing countries particularly. The EC Project concept appropriately identifies the limitations of the FRA Programme with respect to data quality, consistency, and the increasing reporting burden on countries arising from multiple international reporting requirements. The need to coordinate reporting requirements with Multilateral Environment Agreements such as the UNFCCC, the CBD, UNFF; ITTO, regional bodies and regional action plans such as FLEGT is an important recognition by FAO.

162. Undoubtedly the project is relevant, its design is generally in line with the intended outputs and likely to be sustainable if funding can be mobilised to address gaps revealed in this evaluation. The stated impact indicators may be seen as ambitious but they are in fact major drivers of global deforestation and forest degradation. For similar projects in future, the design perhaps simply needs to undertake a more robust theory of change analysis to identify realistic causal chains.

163. The changes introduced to the FRA process through the EC Project are commended by stakeholders who acknowledge that the FRA processes need to be innovative, forward looking and technologically contemporary. There is wide recognition that FRA is not solely an information provider, but it is a knowledge broker and good reference for designing national forest monitoring and assessments.

164. The EC Project was well managed despite some minor challenges arising from delays in the mobilization of all funds required to implement the planned activities. The project was instrumental in leading the FRA programme to deliver and meet the international community and countries' expectations in scope and quality of information, which was clearly improved by the RSS, national and regional capacity building, partnership, and harmonized reporting framework.

165. The EC Project deliverables are highly valued by the majority of informants. The EC Project delivered a number of key intended products with positive outcomes in the areas such as improved understanding of FRA, national reporting process and national networks through capacity building, partnerships, and reporting harmonization.

166. The project was also instrumental in improving the relevance of the FRA programme as well as of the quality of the produced information for use with more confidence by the international community and countries in their decision making on forests and forestry. It helped improve the visibility and ownership of FRA at the global, regional and country level.

167. Despite the important plan of capacity building implemented by FRA at the regional and local levels, the quality of the forestry information in countries will not likely to improve significantly without setting up long term national systems of forest monitoring and assessments . The improved information on forest area and area change generated by RSS is verifiable at the global, regional and ecological zones levels. RSS is not designed for national level implementation. However, the FAO field oriented programmes, like NFMA, UN REDD, FAO-Finland & BMU, can play an important role in setting up national forest monitoring systems and in generating information in a timely manner and with the needed accuracy that benefit the countries and the international community alike.

168. The contribution of the global RSS to FRA is paramount. Its sustainability will depend on FAO ability to continue fostering strategic and operational partnerships with EC JRC, Countries, Academia and Researchers and the private sector.

169. Noting that the global RSS context is evolving fast, FRA has multiple opportunities to use its comparative advantage to retain its role as a strong leader in the area of global forest resources assessment and being the trusted and credible source of global forest sector data. These opportunities include:

- Free satellite data
- Better computing power now than before
- International institutions willing to collaborate
- More internal coordination to increase efficiencies

170. However, there are challenges that need to be addressed. Synchronizing the timing of outputs from FRA to the global conventions' reporting timelines could increase the relevance and use of FRA and that of the CFRQ.

171. The FRA team will need to be aware of the impact of some divergent views among stakeholders with regards to some of the improvements to the FRA process. For instance, the new approach of relying on external reviewers of country reports is seen by some informants as done in anonymous way and loses direct contact between FAO and countries' focal points. Sustainability of this measure is questioned by some, therefore there is need to continue to engage stakeholders to improve this process.

172. There is interest among stakeholders for understanding regional differences in forestry. Some stakeholders perceive the packaging of the FRA 2015 results as not adequately addressing and reflecting regional specificities that are needed to feed the regional debates on forests and forestry by the FAO statutory bodies like the regional forestry commissions and the regional conferences. This may affect the chance of contributing to the impact of better managed forests.

173. While there is recognition that the contribution of the EC project is substantial, the project closed with no clear funding strategy or resource mobilisation to continue some fundamental components such as the remote sensing and capacity building to other countries

that require such support. The FRA team did not show it has a clear strategy for resources mobilisation. This may jeopardise the sustainability of the project and programme results.

174. While most informants agree that FRA covers too many variables which make it a heavy process, there are voices calling to add further variables that relate to SFM i.e. genetic resources. Defining FRA parameters has been and will continue to be challenging because of the many stakeholders involved and the FRA team will need to continue assessing the optimal level of variables.

175. The fast changing global context regarding land use and forestry information requirements demanded by users will continue to challenge FAO such that the strategy and vision on the future of FRA needs to be continuously reviewed and be adaptive in a timely manner. For instance, there is recognition that multi-purpose national forest inventories and remote sensing efforts are now necessary, but perhaps there is limited understanding at a high level in FO on how to adequately achieve and address these requirements. This is perhaps where FD may have an opportunity to take advantage of internal resources and capacities through better cross-departmental collaboration and more importantly, coordination.

Recommendations

The ET proposes the following recommendations to ensure sustainability of the project outputs and outcome and to enhance the likelihood of impact on sustainable forest management:

Recommendation 1: To FAO Forestry Department Management, on sustainability and funding of RSS for FRA

FAO Forestry Department should ensure that the global remote sensing survey remains a source of information for future assessments of the world forests and should consider revamping its contribution to the RSS from the regular programme funds and from extra-budgetary resources

Recommendation 2: To FAO Forestry Department Management on a strategy for remote sensing

FAO Forestry Department should undertake a strategic review and stocktaking of spatial and temporal analytical requirements across FOM to determine what level of remote sensing capacity is optimal to support the business requirements and for better pooling of resources and expertise

Recommendation 3: To FAO Forestry Department Management on support to national forest monitoring and assessment

FAO Forestry Department should take concrete action to devise and implement long term strategy for FAO support to member countries for forest resources monitoring and assessment giving more recognition to multi-purpose national forest inventories, remote sensing and capacity building

Recommendation 4: To the FRA programme on partnership

FAO FRA should continue, in coordination with the CPF members, strengthening the foundations for the established partnership with other processes and organizations with a view to pooling resources and expertise for continued work on harmonisation of the reporting

framework, improvement of the CFRQ and complementarity on forest resources monitoring at country level.

Recommendation 5: To the EC and to FRA on the funding of a second phase of the programme

FAO FRA should act, as a matter of priority, to address the issue of resources mobilisation by concrete action including developing proposal to the EC and opening communication channels with other potential donors for timely replenishment of the FRA programme budget. EC should consider funding a second phase for the support of the global Forest Resources Assessment focusing on (i) the RSS to be jointly implemented by FRA and EC JRC, (ii) the harmonisation of the reporting framework including the CFRQ and, (iii) on capacity building in more developing countries.

Recommendation 6: To the FRA programme on Reporting - online country reporting technology; Collaborative Forest Resources Questionnaire; FRA main report and reporting timelines of the global conventions and processes

FAO FRA should undertake a strategic review and stocktaking of all the introduced changes to the FRA process for lessons learnt and improvement of the introduced technology of online country reporting.

FAO FRA should also continue working with its partner organizations and countries to reduce the reporting burden on countries with continued effort on: (i) harmonisation of the forest related terms and definitions (ii) improving the thematic coverage of the CFRQ that would broaden the range of its use by international and regional forest related organizations; (iii) synchronization with the reporting timelines of the global conventions and process that would increase relevance and use of FRA information and (iv) enhancement of reporting interaction among reviewers and process transparency

Furthermore FAO FRA should continue working towards improving the visibility and relevance of the FRA Programme, enhancing its ownership by all users and contributing to the impact of SFM including producing FRA main report targeting, among users, the FAO's regional statutory bodies like the regional forestry commissions and the regional conferences where FRA information is needed on regular basis.

Recommendation 7: To the FRA programme on technological development

FAO FRA should maintain the FRA programme in tune with the technological development based on expert consultations and advice from expert groups like the FRA AG and the international partners including the EC JRC

Recommendation 8: To the FRA programme on sampling design of the RSS

FAO FRA should engage in discussions with EC JRC, SDSU and other concerned parties including the private sector, where possible, to improve and adapt the design of the global remote sensing survey to meet the information users' requirements

Recommendation 9: To the FRA programme on FRA variables and end products

FAO FRA should undertake dialogue through expert consultations involving stakeholders (countries, international organisations, academia, private sector as well as the FRA Advisory Group) to redefine the variable list that meet the evolving information needs, define the FRA end products and the suitable packaging of the FRA produced information

Recommendation 10: To the FRA programme on FRA national correspondents

FAO FRA should continue strengthening the network of national correspondents for future assessments and between reporting periods as backbone for improving the quality of national forestry information and raising awareness on the utility of national forest monitoring system, and expanding the experience of national expert networks in other countries



Food and Agriculture
Organization of the United
Nations

Office of Evaluation

**Final project evaluation of “Contribution to the Global
Forest Resources Assessment Programme”**

GCP/GLO/218/MUL

Annexes

May 2014

Final evaluation of Contribution to the Global Forest Resources Assessment Programme, GCP /GLO/218/MUL

1 Background of the Project

1. To help meet the global need for reliable and comparable information on the world's forests, FAO has carried out global forest resources assessments (FRA) every five to ten years since 1946. The FRA is a flagship normative product of FAO, and has been published eleven times since 1948. In part this effort has been undertaken to address the concern regarding the quality and quantity of information available from many developing countries on forest resources, products and related institutions and policies.

2. Comprehensive information on forest resources is required for good decision-making and for forests to contribute significantly to livelihoods, sustainable development and poverty reduction. This information is not only needed at national level. International conventions related to sustainable and economic development, as well as other forest-related international arrangements and agreements require harmonized information, methodologies and assessments to facilitate negotiations, information exchange and partnerships. In addition to national information and reporting requirements, countries also have specific reporting commitments to Multilateral Environmental Agreements (especially the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Non-legally Binding Instrument on All Types of Forests of the United Nations Forum on Forests (UNFF)); to regional bodies and to regional action plans such as on Forest Law Enforcement Governance and Trade (FLEGT); and to FAO.

3. Since the first FRA assessments were done their scope has expanded considerably and they now include more than 100 variables related to the status and trends of forest resources and the goods and services they provide. At the same time, concern over the increasing burden on countries to report to international and regional bodies and instruments has been expressed, and hence there is a need for harmonized and streamlined reporting throughout the UN system and in regional and international fora, including on forest-related matters.

4. The FRA programme in FAO covers all countries and territories and is primarily focused on collection, analysis and dissemination of existing information related to forests. The project, "Support to the Global Forest Resources Assessment Process", was implemented with the aim of supporting countries' national efforts to achieve sustainable forest management. The project was designed to help build capacities, where needed, to generate information frequently needed for national decision-making and reporting. More specifically, employing a large network of national correspondents and remote sensing specialists, and using a participatory process for the design and implementation of a survey on forest resources, the project aimed to strengthen the capacities of developing countries to determine historical rates of deforestation and to monitor current and future rates using a common framework and agreed methodology. This could help developing countries benefit from a possible REDD+ mechanism in the future under the UNFCCC, to provide incentives for reducing emissions from deforestation and forest degradation.

1.1 Implementation arrangements

5. FAO plays the lead role on the FRA in partnership with countries and existing forest-related organizations and institutions, seeking to ensure a coordinated approach to capacity building. The FRA has a Secretariat hosted at FAO Headquarters in Rome. Since the project is supporting an existing process there is no parallel implementation structure, in line with the Paris Declaration and countries' commitments on Aid Effectiveness.¹ The project has been carried out within the framework of the global FRA process. Within FAO, the FRA Team of the Forestry Department is responsible for the implementation of the tasks in close collaboration with others in the Forestry Department and with the other FAO Departments. The project team consists of a Senior Forestry Officer, two Forestry Officers and two support staff at HQ and relies on the assistance of the FAO network of regional and sub-regional officers as well as on short and long term consultants, project staff and Associate Professional Officers (APOs). The day-to-day management of the Project was undertaken by the Senior Forestry Officer, Global Forest Resources Assessment of the FAO Forestry Department, who also acted as the Secretary to the FRA Advisory Group.

6. The FRA Advisory Group was established in 2002 and meets once a year or so, whenever possible in conjunction with some other international meeting or event. The FRA Advisory Group provides technical and political advice to the overall FRA process and includes representatives of different countries as well as from a broad range of partner institutions including non-governmental organisations. The advisory group also provided inputs that were used in the management of the project.

7. The project ran from 20 November 2008 to 31 December 2013 to support the preparations for the FRA 2010 and 2015 publications. Reference is made to the original project document and to Addendum n. 1, which describes the no-cost extension.

1.2 Project Goal and Outcome

8. The overarching and long-term goal of the Project is to contribute to better forest management. More sustainable management of forest resources, sustainable use and fair trade of forest products, as well as sound institutional arrangements and policies could help on a long term reducing current rate of deforestation and carbon emissions from forests in developing countries, which will ultimately benefit not only forest owners, managers, researchers but also civil society, in particular vulnerable groups whose livelihoods depend on forest resources.

9. It is expected that increased knowledge and better quality information on the world's forests and forestry will lead to better decision-making at national and international level, to sound institutional arrangements and policies and, ultimately, to better managed forests. Such improvements will benefit on a long-term a much larger group of stakeholders, including not only forest owners and managers but also civil society, in particular vulnerable groups whose livelihoods depend on forest resources.

10. The specific outcome of the Project is to facilitate well-informed and better decision-making related to forests and forestry based on harmonized, comprehensive, timely and accurate information generated by the Project.

¹ <http://www.oecd.org/dac/effectiveness/parisdeclarationandaccraagendaforaction.htm>.

11. The two key outputs expected at the end of the Project, are listed here below together with their subcomponents:

- Improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry
- Reporting burden on countries reduced through increased efforts to harmonise forest-related terms and definitions and to streamline forest-related reporting;
- New knowledge generated and disseminated - in particular on aspects related to status and trends in forested biomes/ecological zones; deforestation rates and land use change dynamics, forest fragmentation and degradation; forest biological diversity; forests and climate change and forest policy and institutions
- Updated information on more than 50 variables related to sustainable forest management generated and disseminated
- Increased capacity in developing countries for forest assessment, monitoring and reporting following a common framework and an agreed methodology

12. Countries capable of making the best use of existing information for decision making at national level and for reporting to the main forest-related processes, including the CBD, the UNFCCC, UNFF and the MDG process.

13. Developing countries throughout the world able to set up a national monitoring system based on remote sensing in order to provide a valid baseline estimate of past deforestation rates and monitor future rates based on a common framework and agreed methodology and thus be able to benefit from a potential instrument of the UNFCCC to reduce deforestation in developing countries.

14. Vibrant global and regional networks of forest monitoring specialists exist, sharing knowledge and experience on a regular basis.

15. The Project consists of five modules of activities:

- Harmonization of terms and definitions and streamlining of reporting;
- Strengthening the capacity for forest reporting;
- A global remote sensing survey;
- Support networking and dissemination;
- Special studies;
- Project monitoring and evaluation.

16. For a detailed description of main activities, key events and main achievements and issues to date see Annex 4.

17. The key elements were defined based on the evaluation of the Global FRA2005 involving all countries; on the recommendations of the Expert Consultation on Global Forest Resources Assessments: Towards FRA 2010 held in Finland in June 2006; and on a series of technical meetings on the proposed global remote sensing survey of forests. Some of the activities under this project were sub-contracted to specialized external entities. Other tasks are being conducted using consultants supported by FAO's staff resources and know-how.

18. The total estimated cost of the five-year FRA programme at time of formulation was approximately 25 million USD (including in kind contribution from participating countries).

The total cost of this project in support of the FRA programme, funded through a multi-donor Trust Fund, was originally estimated at EUR 6,032,112.

19. The European Union undertook to finance a maximum of EUR 3,100,000. The remaining has been partially funded with voluntary contributions from other resource partners. Moreover, part of this project has been carried out independently by the Joint Research Centre of the European Union, with a separate budget (the indicative budget was EUR 500,000). For a detailed description of budget categories see Annex 5.

2 Purpose of the Evaluation

20. This is the final evaluation of the project, covering the period from 2008 to 2013, as a result of a no-cost extension. This evaluation is conducted for a twofold purpose:

- i. contributing to organizational learning; and
- ii. accountability to all stakeholders involved, including project participants.

21. The former means that the Evaluation Report will serve as an input for up-scaling FAO performances in the conduct of this project. This will eventually contribute to sound discussions in preparation of new cooperation projects with the EU or with other resource partners.

22. The latter means that this Evaluation intends to show stakeholders how the EC funds contributed to achieving the outcome and results through activities. Stakeholders of this project are many. National Forestry Agencies are the main direct stakeholders and are represented through the network of National Correspondents to FAO's Global Forest Resources Assessment Programme. Then, as resulted from the Strategic Evaluation of FAO's Role and Work in Forestry completed in 2010, FRA surveys are also widely used in academic and research world.²

3 Evaluation framework

3.1 Scope

23. The scope of the evaluation will encompass all of the project's outputs and its outcome and goal, as they were implemented in the participating countries. Furthermore, as the project has been implemented in the framework of the FRA programme, to which the European Commission contributed a portion of a specific action, to prepare the FRA 2010 and 2015, the project outcomes and impacts should be analyzed in terms of their linkages to the activities and work plan of the FRA team during the overall project period.

24. The evaluation will assess the project from its conceptual phase to current and potential results up to 2015, when the results of next FRA will be released. Since the project aimed to prepare both the 2010 and 2015 FRA's, the assessment will examine whether methodological changes were introduced between the two exercises and if any lessons from the earlier FRA were incorporated for the later exercise. Because data for the 2015 FRA is now under preparation at country level, the evaluation will also have an opportunity to assess the countries' experience with the project methodologies employed. The evaluation will also

² Their value is recognized in donor countries but knowledge of the FRA still needs to be improved in Latin America and Africa.

seek to understand if the project experienced any obstacles and/or exhibited particular strengths, and whether these were respectively addressed or built upon.

25. Based on the project framework, the evaluation will most likely be able to gather and analyze information primarily on the achievement of the project's outputs. Gauging success on the longer-term outcome of facilitating well-informed and better decision-making related to forests based on harmonized, comprehensive, timely and accurate information generated by the project could be challenging as some of it falls beyond the project's sphere of influence. However, with the aim of providing further value to project stakeholders and donors, the evaluation will also explore to what extent the data generated at country and global levels as a result of the project has also been used by global partner organizations and national governments for other forest-related issues. To some degree this is covered by evaluating the achievement on Output B.1, which concerns the use of information generated for decision-making at national level and for reporting for the CBD, UNFCCC, UNFF and MDG processes.

26. As a variety of funding sources in addition to the European Union made the project possible, and attributing the results of each donor's contribution would be difficult, the evaluation will assess the project as a whole. In doing so, however, it recognizes that the EU's funding constituted a significant part of the resources, and hence the evaluation will reflect the outcomes of the EU's support.

27. Given the evaluation funds available, while the assessment will adopt a global scope to cover all the countries involved, it will potentially focus on examining the outputs and outcome in a sample of selected countries in greater depth. It is generally recognized that long-term impacts may be difficult to capture before some years have passed after the end of the project. For most of the goal-level indicators in the project the appropriate realistic timeframe for verification is FRA 2020.

3.2 *Evaluation criteria*

28. The project will be critically assessed through the internationally accepted evaluation criteria, i.e. relevance, efficiency, effectiveness, impact, and sustainability. In line with the new FAO project cycle, the evaluation will assess compliance with the following UN Common Country Programming Principles: Human Rights Based Approaches (HRBA)/ Right to Food/ Decent Work; Gender equality, Environmental sustainability, Capacity Development and Results Based Management.

3.3 *Evaluation issues*

I. Relevance of concept and design

- a. Project relevance to:
 - FAO Global Goals and Strategic Objectives/Core Functions;
 - Other forest-data generation and compilation efforts in the sector;
 - Millennium Development Goals;
 - United Nations Framework Convention on Climate Change (UNFCCC);
 - 2010 Biodiversity Target of the Convention on Biological Diversity (CBD);
 - Global Objectives on Forests of the United Nations Forum on Forests (UNFF);

- b. Robustness and realism of the theory of change underpinning the project;
- c. Clarity, coherence and realism of the Logical Framework³ of the project and of its design, including:
 - The causal relationship between inputs, activities, outputs, expected outcomes (immediate objectives) and impact (development objectives);
 - Validity of indicators, assumptions and risks;⁴
 - Approach and methodology, including the FRA indicators for data-generation, tools for reporting, integrated reporting questionnaire, internet-based data entry and review technologies, and others;
 - Resources (human and financial) and duration;
 - Stakeholder and beneficiary identification and analysis;
 - Institutional set-up and management arrangements.

29. The assessment of point c. will take into account that the Logical Framework is being updated and internally approved following the 2nd Monitoring Mission and subsequent budget revision. As project activities could only indirectly influence impact-level indicators, it was agreed with the European Union that other appropriate performance indicators should be explored for final reporting.

II. Effectiveness of outputs and outcomes

- d. Overall effectiveness of the project, actual or potential, in attaining its intermediate/specific objectives. The following deliverables produced will be described and assessed in terms of quantity, quality and timeliness:
 - FRA 2010 – Country Reports, Main Report, Key Findings, Global Tables, Database: <http://www.fao.org/forestry/fra/fra2010/en/> (+.../fr; .../es). Translations in the 6 UN official languages are available for the Report and key findings;
 - FRA 2015 Workplan: <http://www.fao.org/docrep/017/ap863e/ap863e00.pdf>;
 - FRA Long Term Strategy: http://foris.fao.org/static/data/fra2010/FRALongTermStrategy_En.pdf;
 - Terms and definitions FRA 2015 (E,F,S);
 - Guidelines for FRA 2015 (E, F,S);
 - Collaborative Forest Resources Questionnaire (CFRQ) - Agreement on the integrated reporting made with other international organizations/processes;
 - FRIMS – Forest Resources Information Management System, with 2015 Country reports prefilled and under compilation or review. FRIMS is the internet-based data entry and review system aimed to improve FRA reporting (with automatic quality checks) and review process (peer-to-peer review): <http://foreststats.org/fra2015/login>;
 - Forest Futures methodologies and scenarios defined;
 - Forestry news – newsletter: <http://www.fao.org/forestry/52398/en/> (+.../fr; .../es);

³ The Logical Framework embodies the Results-Based Management approach in a project

⁴ As European Commission monitoring missions suggested, project activities can only indirectly influence some of the goal-level indicators that were originally proposed in the logical framework. These are: i) Reduction in the current rate of deforestation; (ii) Increase in the area of forest under sustainable forest management worldwide; (iii) An increase in the area of forest in protected area system; (iv) A reduction in the current rate of loss of carbon stock in forest; (v) Harmonized and effective forest assessment, monitoring and reporting system in place at national, regional and global levels. For this reason, other appropriate indicators will be explored.

- Network of National Correspondents to FRA – Communications and updates;
 - New map of World’s forest 2010, Global Forest Resources Assessment map: <http://www.fao.org/forestry/fra/80298/en/> (+.../fr; .../es) or <http://data.fao.org/map?entryId=063720fb-79b5-44e5-832b-1c03f6b845ac> (integrated into the FAO database);
 - Global meetings, National and Regional Capacity Building and Networking Workshops;
 - Final Remote Sensing Report – “Global forest land-use change. 1990-2005”, Rome 2012 - Forestry Paper #169: <http://www.fao.org/docrep/017/i3110e/i3110e.pdf> (E, F, S);
 - “The FRA 2010 Remote Sensing Survey An Outline Of Objectives, Data, Methods And Approach” - Working Paper 155: <http://www.fao.org/docrep/012/k7023e/k7023e00.pdf>;
 - FRA RSS data portal: <http://www.fao.org/forestry/fra/remotesensing/en/>
 - Remote sensing Workshops - summaries and training material for remote sensing interpretation on-line at RSS Meetings page: <http://www.fao.org/forestry/fra/55919/en/> (+.../fr; .../es);
 - “Assessing forest degradation. Towards the development of globally applicable guidelines - Forest Resources Assessment Working Paper - 177 <http://www.fao.org/docrep/015/i2479e/i2479e00.pdf>;
 - “Global ecological zones for FAO forest reporting” - Forest Resources Assessment Working Paper - 179 2010 update (2012), EN: <http://www.fao.org/docrep/017/ap861e/ap861e00.pdf>;
 - “Towards The Assessment Of Trees Outside Forests” - Forest Resources Assessment Working Paper 183: <http://www.fao.org/docrep/017/aq071e/aq071e00.pdf>;
 - Report on the global analysis of forests, ecological zones, biodiversity and protected areas for the year 2010 United Nations Environmental Programme World Conservation Monitoring Centre;
 - Natural Inquirer (100 000+ copies);
 - Description and analysis of the outcomes achieved, expected and unexpected, their robustness and expectations for further uptake and diffusion, as well as to what extent additional uses were made of the data produced;⁵
- e. The actual and potential contribution of the project to the normative and knowledge function of the Organization.

III. Efficiency and effectiveness of project implementation process

- f. Assessment of project management:
- Quality, realism and focus of work plans;
 - Assessment of delivery, causes and consequences of delays and of any remedial measure taken, if any;
 - Monitoring and feed-back loop into improved management and operations;
 - Staff management;
 - Development and implementation of an exit strategy;
- g. Institutional Setup:

⁵ ‘FAO projects should have (only) one outcome. Programmes may have more.’ From FAO Project Cycle Guidelines, 2012

- Administrative and technical support by FAO HQ, regional, sub-regional and country office forestry and other staff, as appropriate;
- Institutional set-up, internal review processes, coordination and steering bodies;
- Inputs and support by the Government/s and resource partner/s.

- h. Assessment of financial resources management, including:
- Adequacy and realism of budget allocations to achieve intended results;
 - Adequacy and realism of Budget Revisions in matching implementation needs and project objectives;
 - Rate of delivery and budget balance at the time of the evaluation and in relation to work-plans.

IV. Analysis of the application of the UN common country programming principles and cross-cutting themes

- i. Gender mainstreaming for gender equality: since the project was concerned with producing macro-level data on the quality of the world's forests, but also collected data on national forest institution staff as well as trained country-level technical specialists, the evaluation will assess:
- the inclusion of gender equality among the FRA indicators
 - project's efforts to include female technical staff in the workshops as beneficiaries;
 - extent to which gender equality considerations were taken into account in project team composition, implementation and management.⁶
- j. Analysis of the Capacity Development dimension in the design, implementation and results of the project, at individual, organizational and enabling environment levels.⁷ In particular, the evaluation will:
- evaluate the extent to which the capacity of the national forestry agencies has been strengthened for forest resource assessment and the use of information generated for decision-making; this will include CD on both technical and soft-skills;
 - examine to what extent the countries, according to their "baseline" capacities, were able to absorb the benefits the project intended.
- k. With regard to Partnerships and Alliances, the evaluation will analyze the following:
- how they were planned in the project design and developed through implementation;
 - their focus and strength; and how the project utilized the partnership with the Joint Research Center and other available opportunities;
 - their effect on project results and sustainability.⁸

30. The evaluation will not analyze how environmental impacts were taken into consideration and addressed since there were no foreseen immediate impacts of the project on the environment, and the project was designed, broadly speaking, for its conservation.

V. Impact

⁶ See: http://typo3.fao.org/fileadmin/templates/gender/docs/FAO_FinalGender_Policy_2012.pdf

⁷ See: <http://www.fao.org/capacitydevelopment/en/>

⁸ See: <http://www.fao.org/partnerships/partners-home/en/>

- l. The evaluation will assess to what extent additional uses were made of the data produced and the actual and/or potential changes brought about by capacity strengthened for decision-making and knowledge generation at national level; and
- m. the project's overall contribution of the project to FAO, Organizational Result/s and Strategic Objectives, as well as to the implementation of the corporate Core Functions.

VI. Sustainability

- n. The evaluation will assess the prospects for sustaining and up-scaling the project's results and forest resource assessment methods and technologies by the beneficiary national institutions, their governments, other partners and the FRA after the termination of the project. The assessment of sustainability will include, as appropriate:
 - Institutional, technical, social and economic sustainability of proposed technologies, innovations and/or processes;
 - Expectation of institutional uptake and mainstreaming of the newly acquired capacities, or diffusion beyond the beneficiaries or the project;
 - Environmental sustainability: the project's contribution to sustainable natural resource management, in terms of maintenance and/or regeneration of the natural resource base.

31. Based on the above analysis, the evaluation will draw specific conclusions and formulate recommendations for any necessary further action by FAO and/or other parties to ensure sustainable development, including any need for follow-up or up-scaling action. The evaluation will draw attention to specific good practices and lessons to be learned as they are of interest to other similar activities. Any proposal for further assistance should include specification of major objectives and outputs and indicative inputs required.

4 Evaluation methodology

4.1 Approach and tools

32. The evaluation will adhere to the UNEG Norms & Standards⁹.

33. The evaluation will adopt a consultative and transparent approach with internal and external stakeholders throughout the evaluation process. Triangulation of evidence and information gathered will underpin its validation and analysis and will support conclusions and recommendations.

34. The evaluation will make use of the following methods and tools:
- semi-structured interviews with key informants, stakeholders and participants, supported by check lists and/or interview protocols;
 - review of project materials, and existing evaluation reports;
 - survey questionnaire.

⁹ United Nations Evaluation Group, <http://www.uneval.org/normsandstandards>

35. As the project is global in scope, the evaluation will conduct one or several surveys of all the participating countries with the key questions on relevance, design and methodology, effectiveness, efficiency, sustainability. The questionnaire(s) will be sent to the National Correspondents and technical staff of the forestry institutions, and the results will be compiled to derive findings on the project's performance at the global level. Interviews with the project team, the global and regional partners, and the documentary analysis will also focus on the global outcomes and activities of the project.

36. At the same time, in order to obtain a more in-depth understanding of the project's activities and contributions at country-level, the evaluation will examine its cooperation with five selected countries. The countries are Ecuador, India, Lao PDR, Uganda and South Sudan. The selection is a non-random sample based on the use of various criteria: geographic representation across the South; a relatively important amount of forest in the country; a moderate to high rate of deforestation; different levels of national and forest institution capacity for forest assessment and use of the data for decision-making; participation in a national FRA workshop for national networking and/or remote sensing, and, preferably, participation in a sub-/regional workshop as well. Countries in Central Asia, Eastern Europe and the Near East were not chosen because according to FRA 2010 their deforestation rate is overall low to moderate (with total forest area having increased in many), their capacity, particularly in Eastern Europe is considerable, and national FRA workshops were not conducted in them.

37. The holding of one or more national workshops in the country was an important factor in the country selection.¹⁰ The conduct of a National Networking workshop is particularly key for the evaluation, as the aim of such events was to bring together different relevant stakeholders, public, private and NGO, from various sectors and involved in forest assessment and policy-making, in order for the forest data produced to be more accessible for national decision-making purposes. Indeed, an objective of the project was to see the information generated used to guide policy-making in different forest-related areas. Participation in the workshops for FRA 2015 rather than FRA 2010 was chosen for several reasons: a) the EC supported the former events but not always the latter, b) the evaluation will be able to gather better information from country stakeholders on more recent activities (and in which they were more deeply engaged), and c) it will be able to do a "real time" assessment of the countries' experience with the methods as they are presently applying them to produce FRA 2015 data.¹¹ For all the countries the evaluation will examine whether and how the forest data generated has been used for national policy-making on forests, though Ecuador will be a particularly interesting case as it is engaging in REDD+ Readiness and it would be useful to explore how the information for FRA has been utilized for this purpose.

38. Since an aim of the project has been to strengthen capacity in forest assessment to produce quality information and reduce the burden for countries to report forest data, the evaluation will focus on those with lower capacity in its sample of five countries and examine

¹⁰ It should be noted, however, that Lao PDR was the only country in Asia in which national-level workshops were held.

¹¹ The criteria the project applied to countries for determining in which ones national workshops would be held were similar to those this TOR uses for selecting the countries of focus: 1) a relatively important amount of forests; (2) possessing relatively old or out of date forest inventory or remote sensing data; and (3) receiving no support from other programmes, or where it was possible to create synergies and joint efforts with other programmes. The identified countries were contacted by FAO and asked if they wished to receive these capacity building workshops.

the extent to which the project has helped to strengthen their skills. India, a country with significant capacity, is an exception and was selected because it hosted a sub-regional FRA 2015 workshop and has outside of the project developed the forest assessment capacity of other countries in the sub-region. The evaluation will examine to what degree the FRA's methods have added value to India's approaches as well as whether the country has owned and disseminated the methods in its capacity development activities. In Africa, Cameroon, DRC and Gabon also had national workshops and rank significant with respect to forest size, deforestation and the need for capacity building. However, as these countries are often selected for forestry-related evaluations owing to the importance of their forests, Uganda and South Sudan were instead chosen for the continent. Adding to the selection criteria employed, Uganda's rate of deforestation was ranked highest in Africa in the FRA 2010, and South Sudan as a new country has experienced particular capacity challenges and lack of information on its forests. The evaluation team will also interview the project partners, ITTO and Observatoire des Forêts d'Afrique Centrale (OFAC) regarding their partnership in the workshops in Central Africa.

39. The evaluation team will assess the project's assistance to the five selected countries through telephone interviews with National Correspondents, technical staff in forest assessment and other country participants in the national and regional workshops, through meetings with project staff, and through the examination of any documents relating to the support provided to the countries. This will be made possible from the assistance the project staff provides to the evaluation team for arranging the country and partner interviews and making documentation available.

Country Selection

Region and Country	Size of Forest & other wooded land (1000 ha)	Annual Change Rate 2005-10 (%)	Capacity of Forest Institutions	National Networking Workshop held	RSS Workshop held	Attended or hosted sub-/regional workshop
Africa						
Uganda	24,104	-2.72	Low	X	X	X
South Sudan	ND	ND	Low	X	X	
Asia						
India	328,726	0.21	Med.- High			X (host)
Lao PDR	23,680	-0.49	Low	X	X	X
Latin America & the Caribbean						
Ecuador	28,356	-1.89	Medium		X	X

40. The Strengths, Weaknesses, Opportunities and Threats (SWOT) framework can also be used for assessment of project results and implementation.¹²

41. Particular attention will be devoted to ensure that women and other under-privileged groups will be consulted in adequate manner. Insofar as possible and appropriate, interaction will also take place with non-participants, external to FAO and within the agency working on related issues, to canvass their opinions.

¹² SWOT is a widely used strategic planning tool, useful also in the assessment of development interventions, to canvass their strengths and weaknesses, as well as future perspectives. It is particularly used in focus groups, but it can be adapted to individual interviews as well.

42. In terms of constraints and limitations to the evaluation, as mentioned above the assessment will analyze the project only with respect to those UN Common Country Programming Principles that are relevant to its work; gender equality, capacity development and results-based management.

4.2 Stakeholders and consultation process

43. The evaluation team will discuss the project in detail with its key stakeholders in the course of the mission, and will take into account their perspectives and opinions. Key stakeholders will include:

- Project Task Force members;
- A select sample of representative National Forest Agencies and remote sensing communities in the participating FAO countries (accompanied by a survey to all other participating countries);
- Representatives from selected international organizations and processes working with forest resources and remote sensing:
- Joint Research Centre of the European Commission at Ispra, Italy;
- Montréal Process;
- International Tropical Timber Organization – ITTO;
- Commission des Forêt d’Afrique Centrale – COMIFAC;
- Forest Europe;
- UNFCCC
- CBD
- UNFF
- the resource partner - European Commission – Directorate General Development and Cooperation - EuropeAid;
- FAO Representatives in the participating countries;
- FRA Advisory Group representatives and
- Researchers from academic and research institutions.

44. Other stakeholders, internal and external to FAO, will also be interviewed for the evaluation. In terms of soliciting comments on the final draft evaluation report, in addition to the project Task Force and donor, a select group of National Forest Agency staff and global organizational partners will be chosen from the list above.

45. The evaluation team will maintain close liaison with: the FAO Office of Evaluation, the Project Task Force members and Project staff. Although the mission is free to discuss with the authorities concerned anything relevant to its assignment, it is not authorized to make any commitment on behalf of the Government, the donor or FAO.

46. The team will present its preliminary findings, conclusions and recommendations to the project stakeholders at HQ since the project is based there, to obtain their feedback at the end of the data-gathering phase.

47. The draft ToR will be circulated among a select group of key stakeholders, including the donor, for comments before finalisation; suggestions will be incorporated as deemed appropriate by OED. The draft evaluation report will also be circulated among key stakeholders for comments before finalisation; suggestions will be incorporated as deemed appropriate by the evaluation team.

5 Roles and responsibilities

48. FAO Budget Holder (BH), the Lead Technical Officer (LTO) and the Project Task Force (PTF) of the project to be evaluated are responsible for initiating the evaluation process, drafting the first version of the Terms of Reference, and supporting the evaluation team during its work. They are required to participate in meetings with the team, make available information and documentation as necessary, and comment on the draft final terms of reference and report. Involvement of different members of the project Task Force will depend on respective roles and participation in the project.

49. The BH is also responsible for leading and coordinating the preparation of the FAO Management Response and the Follow-up Report to the evaluation, fully supported in this task by the LTO and PTF. OED guidelines for the Management Response and the Follow-up Report provide necessary details on this process.

50. FAO Office of Evaluation is responsible, in consultation with the BH and LTO, for finalizing the ToR, identifying the consultants and organizing the team's work;¹³ it shall brief the evaluation team on the evaluation methodology and process and will review the final draft report for Quality Assurance purposes in terms of presentation, compliance with the ToR and timely delivery, quality, clarity and soundness of evidence provided and of the analysis supporting conclusions and recommendations.

51. The Office of Evaluation has also a responsibility in following up with the BH for the timely preparation of the Management Response and the Follow-up to the MR.

52. The Evaluation Team is responsible for conducting the evaluation, applying the methodology as appropriate and for producing the evaluation report. All team members, including the Team Leader, will participate in briefing and debriefing meetings, discussions, field visits, and will contribute to the evaluation with written inputs for the final draft and final report.

53. The Team Leader guides and coordinates the team members in their specific work, discusses their findings, conclusions and recommendations and prepares the final draft and the final report, consolidating the inputs from the team members with his/her own. The Evaluation team will be free to expand the scope, criteria, questions and issues listed above, as well as develop its own evaluation tools and framework, within time and resources available.

54. The team is responsible for its report which may not reflect the views of the Government or of FAO. An evaluation report is not subject to technical clearance by FAO although OED is responsible for Quality Assurance of all evaluation reports.

55. As a contribution to the OED Knowledge Management System:

- the Team Leader will be responsible for completing the OED quantitative project performance questionnaire, to be delivered at the same time with the final evaluation report;
- OED will ask all team members to complete an anonymous and confidential questionnaire to get their feedback on the evaluation process.

¹³ The responsibility for the administrative procedures for recruitment of the team, will be decided on a case-by-case basis.

6 Evaluation team

56. Mission members will have had no previous direct involvement in the formulation, implementation or backstopping of the project. All will sign the Declaration of Interest form of the FAO Office of Evaluation.

57. The evaluation team will consist of two members, a Team Leader and a Team Member, and comprise the best available mix of skills that are required to assess the project. The team as a whole will have expertise in all the following subject matters:

- international forestry issues,
- forest resources assessment and remote sensing;
- data uses for policy at national and global levels;
- forestry institutions;
- evaluation of projects and programmes.

58. To the extent possible, the team will be balanced in terms of geographical and gender representation to ensure diversity and complementarity of perspectives.

7 Evaluation deliverables

59. The evaluation report will illustrate the evidence found that responds to the evaluation issues, questions and criteria listed in the ToR. It will include an executive summary. Supporting data and analysis should be annexed to the report when considered important to complement the main report.

60. The recommendations will be addressed to the different stakeholders and prioritized: they will be evidence-based, relevant, focused, clearly formulated and actionable.

61. The evaluation team will agree on the outline of the report early in the evaluation process, based on the template provided in Annex I of this ToR. The report will be prepared in English, with numbered paragraphs, following OED template for report writing. Translations in other languages of the Organization, if required, will be FAO's responsibility.

62. The team leader bears responsibility for submitting the final draft report to FAO within 2 weeks from the conclusion of the mission. Within 2 additional weeks, FAO will submit to the team its comments and suggestions that the team will include as appropriate in the final report within maximum two weeks.

63. Annexes to the evaluation report will include, though not limited to, the following as relevant:

- Terms of reference for the evaluation;
- Profile of team members;
- List of documents reviewed;
- List of institutions and stakeholders interviewed by the evaluation team;
- List of project outputs;
- Evaluation tools.

8 Evaluation timetable

64. The planning for the evaluation mission is expected to begin in December and the mission will occur in January. The country visit phase is expected to last approximately 2 and half weeks. The timetable in the box below shows a tentative programme of travel and work for the evaluation team. It will be finalised upon the recruitment of the evaluation team.

Tentative timetable of the evaluation

Task	Dates	Duration	Responsibility
<i>ToR finalization and endorsement</i>	By 11 October 2013		PTF prepares and sends 1 st draft to OED
	By November	2-3 weeks	OED to provide additions, circulate to donor for comments, finalize and clear TOR.
<i>Team identification and recruitment</i>	By late November	3 weeks	OED/PTF identify team members
	By early December	2 weeks after identification	OED conducts recruit with SSC ment
<i>Mission organization</i>	Mid- December	2 weeks	PTF/OED, in consultation with Evaluation Team
<i>Evaluation team preparation, and development and dissemination of any surveys to participating countries</i>	Mid- December	1 week	Evaluation Team, with assistance of PTF & OED for survey dissemination –materials provided by PTF by email, CD-Rom or shared external drive
<i>Briefing to Evaluation Team</i>	Mid-January	1 day before mission.	OED
<i>Mission, including debriefing to PTF and BH on draft findings</i>	Mid-January	2 weeks	Evaluation Team
<i>Submission of draft evaluation report, with survey results, to OED Evaluation Manager (EM)</i>	Mid- February	2 weeks after end of the mission	Evaluation Team provides to OED for quality assurance
<i>OED EM comments provided to evaluation team</i>	Mid- to late February	1 week after submission of report	OED Evaluation Manager
<i>Submission of final draft report to OED EM</i>	Late February	3 days after receipt of OED comments	Evaluation Team Leader
<i>Submission of final draft report to key stakeholders for comments</i>	Late February	Upon receipt of final draft report from Team Leader	OED EM
<i>Key stakeholder comments submitted on final draft report</i>	Mid-March	2 weeks after receipt of report	Key stakeholders
<i>Final evaluation report and comments response matrix submitted to OED and stakeholders</i>	Mid-March	3 days after receipt of comments	Evaluation Team Leader
<i>Request for Management Response sent to BH and project team</i>	Mid-March	Upon receipt of final report	OED EM
<i>MR submitted</i>	Late March	2 weeks after receipt of request	BH

Annex 2 **Evaluation Team Profile**

Mr Mohamed Saket (International Consultant/Team Leader) has over 36 years of experience in forestry and related fields of forest resources monitoring and assessment, remote sensing and mapping, forest management and conservation. He worked in about 12 years in North Africa, 10 years in Southern Africa, 10 years at FAO Headquarters where acted as Coordinator of the FAO programme of support to National Forest Monitoring and Assessment (NFMA), 03 years in the FAO Office for the Near East as Senior Forestry Officer and one year retiree consultant in the near East Region.

In North Africa, Mr Saket worked in his home country Tunisia as forester in the Forest Management Division of the General Directorate of Forests before he was assigned to lead the Service of Forest Protection and then the Service of Forest Inventory. He designed and initiated the first national forest and pasture resources inventory of Tunisia. In Southern Africa, Mr Saket worked for FAO as Forestry Officer to design and implement the national forest inventory (NFI) of Mozambique. He assisted Mozambique carry out the updating of its first NFI and a more detailed mapping of the country's forest resources. He also provided technical assistance in forestry policies and strategies, develop country capacity in forest inventory and set up forest inventory unit within the Forestry Department. He also served in an AfDB funded project to Mozambique as Forest Inventory Specialist with ETC UK. In this assignment he implemented the programme of capacity building in the Provinces of Sofala and Capo Delgado and supervised the detailed inventory in both provinces.

In the Forestry Department of FAO at the Headquarters, Rome, Italy, he was assigned the responsibility to develop and lead the FAO NFMA programme. NFMA provided assistance to large number of countries in Latin America, Africa and Asia to set up multipurpose national forest monitoring assessment. He authored a number of working papers related to national forest inventory methodology and strategy. He also participated actively in the debate on climate change and REDD.

In the FAO Office for the Near East covering North Africa, Near East and Central Asia, Mr Saket led the FAO programme of forestry and rangelands, initiated many studies, supervised all FAO sponsored forestry projects in the region, planned, serviced and coordinated different meetings and the sessions of the Near East Forestry Range Commission.

After he retired from the Organisation, Mr Saket was hired to support the Ministry of Agriculture of Lebanon formulate a detailed roadmap for the national afforestation and reforestation programme under the Planting 40 million forest trees initiative.

Mr Nelson Gapare (International Consultant). Mr Gapare has over 20 years of working experience in Forestry, Climate Change, Environmental Management, Mapping and Geospatial Technology. He has experience in Africa, Asia, South America and Australasia. He holds an M.B.A. from Massey University, New Zealand, a Postgraduate Diploma in Resource Studies from Lincoln University, New Zealand and a Diploma in Forestry Management from the Zimbabwe College of Forestry.

Mr Gapare has participated in assignments related to the local and national implementation of REDD+ initiatives. Specifically, he has acted as REDD+ technical advisor and MRV Specialist for the Laos Department of Forestry. He has managed assignments for VCS projects on carbon monitoring and avoided deforestation in Papua New Guinea and Lao PDR. He was workstream leader for the development of New Zealand's National Land Use and Carbon Analysis System (LUCAS) and continued to

leads project to map and monitor. In 2010, he successfully led a team of national experts on Land Use, Land-Use Change & Forestry (LULUCF) for the in-country New Zealand 2008 GHG Inventory Report, as part of meeting international obligations under the Kyoto Protocol and UNFCCC.

Mr Gapare has been a team member for REDD+ MRV implementation in Guyana. He also worked as a Senior Research Officer for the Forestry Commission in Zimbabwe.

Mr Gapare has been involved in the review and evaluation of Climate Change and Natural Resource Management projects, programmes and initiatives in New Zealand, Lao PDR, and Vietnam and Tanzania. In addition, Mr Gapare has trained in and has applied change management strategies, at project, programme, and organisational levels using various approaches encompassing theory of change and outcomes frameworks

Annex 3 **List of Documents Reviewed**

1. Project document GCP-GLO-218-MUL
2. 1st EC Monitoring Report , 2011
3. 2nd EC Monitoring Report, 2012
4. EC Report Background Conclusions Sheet
5. FRA 1 Project Progress Report, FRA 2009
6. Project Progress Report, FRA 2010
7. Project Progress Report 2010-2011, FRA
8. Progress Report, FRA 2011
9. EC Final Report – Draft
10. FAO Strategy for Forests and Forestry
11. FRA Long Term Strategy
12. FRA 2015 Implementation Plan
13. Strategic Evaluation of FAO’s Role and Work in Forestry
14. FRA 2015 Capacity Building activities during 2013
15. The Global Forest Resources Assessment, Auto-Evaluation, 2010
16. FRA personnel and Consultants Funding Sources – Information note FRA, 2014
17. GCP-GLO-218-MUL Evaluation [Terms](#) of Reference
18. Funding to FRA programme – Information Note, FRA, 2014
19. FRA Users Survey
20. Lists of global FRA 2010 & 2015, Regional, National and Remote Sensing Workshops, FRA 2014
21. [Agreement with ITTO - 2009-2010](#)
22. Guidelines for country reporting to FRA 2010
23. Specification of National Reporting Tables for FRA 2010
24. FRA 2010 Terms and Definitions
25. Final RS Report – “Global forest land-use change. 1990-2005”
26. Map of World’s forest up to 2005 and new map of World’s forest with 2010
27. List of National Correspondents to FRA 2010 & FRA 2015
28. Key activities per Module: Module 1: Harmonisation of Terms and Definition; Module 2: Capacity Building; Module 3: Remote Sensing; Module 4: Special Studies; Module 5: Network of NCs and; Module 6: Project Monitoring and Evaluation
29. Impact analysis, Oakley et al., 1998
30. Holmgren and Persson The evolution of global forest assessments, 2002
31. Forest Resource Assessment Working Paper 178
32. Arid zone forestry: A guide for field technicians, FAO 1989
33. <http://gem.jrc.ec.europa.eu/index.php/pages/GlobalForestResourceMonitoring/4>
34. JRC and FAO, Global forest land-use change from 1990 to 2005, Initial results from the Remote Sensing Survey of the FAO Global Forest Resources Assessment, side-event at 17th Conference of Parties of the UN Framework Convention on Climate Change, 2011
35. Presentation at UNFCCC COP-17 JRC/FAO side-event 30 November 2011 TREES-3 project – data, methods and results
36. Stibig, H.-J. et al, 2014 Changes in tropical forest cover of Southeast Asia from 1990 to 2010 Biogeosciences, 2014.
37. Mayaux P. et al, State and evolution of the African rainforests between 1990 and 2010, 2013

38. Eva H.D., et al. Forest cover changes in tropical South and Central America from 1990 to 2005 and related carbon emissions and removals *Remote Sens.* 2012

Annex 4 **List of Institutions and Stakeholders Interviewed**

FRA TEAM

Name	Role
Kenneth MACDICKEN	Team Leader, Senior Forestry Officer
Erik LINDQUIST	Forestry Officer, Remote Sensing
Leticia PINA	Forestry Officer, Capacity Building
Marieke SANDKER	Forest Futures Coordinator
Remi D'ANNUNZIO	Forestry Officer, Remote Sensing and GIS
Orjan JONSSON	Forestry Officer, Forest Resources Assessment
Monica GARZUGLIA	Forestry Officer, Forest Resources Assessment
Sara MAULO	Forest Resources Communication Specialist

Forest Department and FAO Representatives

Name	Role	Telephone	Skype contact
Mette LOYCHE WILKIE			
Anssi PEKKARINEN			
Maria SANCHEZ			
Eduardo MANSUR	Division Director		
Bart VANOMMEN			
Renato Cumani (John Latham, NRL)	Land cover mapping		
Danilo Mollicone, FOM	BMU project supporting 18 countries to use remote sensing to monitor their forests		
Inge Jonckheere, FOM	UN-REDD Programme Remote Sensing focal point + Satellite Data Management System with Norway		
David Morales, FOM and Anne Branthomme	Support to National Forest Monitoring and Assessment		
Adam Gerrand, NRC	ex-FRA member & lead of RSS for FRA 2010		
Mr. Pedro Pablo Peña Cruz	FAO-Ecuador Representative	+593 9 87356909	Skype: pedro.pablo.pena1
Mr James Wani (FAOSS)			
STEPHEN ANTHONY RUDGARD, Manola Soukhavath & Saly Khamsoukpanya	FAO-Lao PDR Representative Administrative Clerk,		Skype contact

UGANDA

Name	Role	Designation	Institution	Email	Telephone or skype
Mr.Elungat Odeke David	NN/RS	Coordinator Inventory and Surveys	National Forestry Authority	elungat22970@alumni.itc.nl	256 -772-587049
Mr. Ssenyonjo Edward	NN/RS	Remote Sensing Specialist/FRA RS Focal Point	National Forestry Authority	edwards@nfa.org.ug ; Senyonjo.edward@gmail.com	Phone number: +256772521432.
Dr. Wilson Kasolo	NN	Principal	Nyabyeya Forestry College	nfc@infocom.co.ug kasolow@gmail.com	256-772496986 +256772496986
Rashid Ssekitto	RS	Land Management Specialist	Mapping and Inventory Centre (MIC)	rashids@nfa.org.ug seto22000@gmail.com seto22000@yahoo.co.uk	+256 776 733 377 +256 703 033535 +256 712 733 377 256-776211022
Justine Namaalwa		Senior Lecturer	School of Forestry, College of Agriculture and Environmental services Makerere University, Kampala	namaalwa@forest.mak.ac.ug ; namaalwajustine@yahoo.com	+256-772-962877

SOUTH SUDAN

Name	NN and/or RS	Designation	Institution	Email	Telephone or skype
Mr Simon Dralley Nimaya	RS & NN	NC, Forester GIS & RS	Ministry of Agriculture Forestry, Cooperatives and Rural Development/RSS Juba	dralley@gmail.com	211-955-192196 fuda.nimaya
Ms Nadia Forezer	RS	Forester, GIS	Ministry of Agriculture Forestry, Cooperative & Rural Development RSS Juba	nadiafrezar@gmail.com	211-955-522725
Mr Massimo K Moilinga	NN	Assistant Professor	University Juba	massimomoilinga@yahoo.com	211-955-342045 Mobile: +211 955342045 Skype: Massimo.Moilinga
Christopher B Lemi	NN	MAF-RSS	Director Min. Agriculture Forestry, Tourism, Animal resources and Fisheries Cooperative and Rural development	christlemi@yahoo.co.uk	Tel: +211-955162880 +211-915984956 +211-977110108

LAO PDR

Name	NN and/or RS	Designation	Notes	Email	Telephone or skype
Mr. Soukanh Bounthabandith	Laos National Correspondent	FIPD,DOF	He is the only one speaking English also involved in the organization of RS workshop	skbtpd@hotmail.com	
Khamkhong Inthavong	Remote sensing specialist,		Mr. Soukanh Bounthabandith needs to be involved to contact these people		
Siamphone Siboun	GIS specialist,				
Sombath Panhyasak	deputy of Forest Resources Information Center,				

India and regional countries

Name	Country	Designation	Institution	Role to FRA	Email	Telephone
Mr Pen Narayan KANDEL	Nepal	Ministry of Forests and Soil Sinhadarbar Kathmandu	Joint Secretary	National Correspondent	pkkandelnepal@gmail.com	By phone: +9771-4225144 +9771-4220552

ECUADOR

Name	Country	Designation	Email	Telephone	Skype
MARGARITA ALVARRUIZ BERMEJO	Esp.	Procesamiento de imágenes Satelitales (SP4)	MAE CANOPUS malvarruiz@ambiente.gob.ec	2463637 0991313800	maalvar
PABLO JAVIER MONCAYO SILVA	Esp.	Procesamiento de imágenes Satelitales (SP4)	MAE CANOPUS pmoncayo@ambiente.gob.ec pabmons@gmail.com	998595830 0993936664	pablo.moncayo.silva
ALONSO DANILO GRANJA VILLAMIL		Coordinador Nacional proyecto Monitoreo OTCA	MAE OTCA CANOPUS agranja@ambiente.gob.ec	0987362579	danilongr79
JOSE LUIS CARRIÓN SANCHEZ			FAO	2463637 0991313800	maalvar

External Organizations

Name	Institution	Role	Email	Telephone
Ian Thompson	CBD, Based in Ontario Canada		Ian.Thompson@NRCan-RNCan.gc.ca	Papa_tea Phone: +1705 541 5644
Jenny Wong	UNFCCC, Bonn		JWong@unfccc.int	

	Germany			
David Sanmiguel-Esteban & Philippe Mayaux	The donor-EC Brussels		David.SANMIGUEL-ESTEBAN@ec.europa.eu	Forestry Sector Unit C.2 – FLEGT, REDD+ Office for Development & Cooperation (DEVCO) – EuropeAid
Hugh Eva	JRC	Scientific/Technical Project Officer	hugh.eva@jrc.ec.europa.eu	0039-0332-78-5016
Frederik Achard	JRC		frederic.achard@jrc.ec.europa.eu	+39-0332-78-5545
Steve Johnson	ITTO, Yokohama Japan		johnson@itto.int ; Johnson@itto.or.jp	+81-45-223-1110 Skype: shuchou_steve
Roman Michalak	UNECE, Geneva Switzerland +0		roman.michalak@unece.org	(41) 22 - 917 2879 Skype: rom.wim
Carlos de Wasseige	OFAC, DRC	Coordonnateur régionale	cdewasseige@observatoire-comifac.net	Phone : +243811825050 Skype : cdewasseige
Joanne Frappier	Montreal Process Canada, Ottawa	Director General Planning, Operations & Information Branch Canadian Forest Service	frappier@nrcan-rncan.gc.ca	Skype alias: jofrap Phone: 1-613-947-9101
Tim Christophersen	Member of the FRA Advisory Group from CBD at the time		Tim.Christophersen@unep.org	
Matt Hansen	ex SDSU – now Maryland		mhansen@umd.edu	matthew.c.hansen1 Phone, 301-405-2284

Annex 5

Approved Programme Budget

Donor	Approved Programme Budget	Approved Programme Budget translated in USD as of 25 February 2014	Amount transferred USD
1	2	3	4
AUSTRALIA 1 st Agreement	100,000.00 USD	100,000.00	100,000.00
EC	3,100,000.00 EURO	4,229,087.44	3,727,052.16
FINLAND	500,000 EURO	734,369.72	734,369.72
France	70,323.49 USD	70,323.49	70,323.49
ITTO	80,000.00 USD		105,000.00
Total			4,736,745.37

Annex 6 Interview questions to FRA stakeholder for the evaluation of EC project

Stakeholders to interview:

- FRA and Forestry Department professional and Senior staff, including project developer
- Selected countries' representatives
- Partner organizations
- Funding Agency (EC)
- Members of the Advisory Group

Interviews:

1. With FRA team members:

Focus of questions:

- Process of FRA (fundamentals of strategy for FRA, frequency and thematic coverage of FRA, country reporting, remote sensing survey, partnership, etc..)
- Actual approach to FRA (pros and cons and needs for improvement)
- Information quality and users' requirements and expectations
- In-house collaboration
- Management of FRA and projects

Type of questions

1. Is 5-year frequency of FRA suitable from FAO's capacity to deliver and global users' needs perspective?
2. Is the list of variables and parameters covered by FRA suitable to provide users with needed information for SFM?
3. What can be done more to improve FRA?
4. Are countries still committed for reporting to FRA and to other FRA related activities?
5. Are international organizations willing to partner with FAO on FRA?
6. What role FAO can play to improve countries' information base?
7. Is NFMA programme playing its role for improving countries' information and hence global FRA information?
8. How UNREDD can contribute to improving countries' information on forests besides carbon and GHG emissions?
9. How did FRA programme evolve during the last 15 years in terms of scope and quality of generated information and approach to improving FRA efficiency and impact?
10. What should FAO do to improve the relevance of the FRA generated information and make FRA a user's driven programme
11. What are the obstacles, if any, that are hampering sustainability of FRA?
12. Can you write one and half page max on relevance, efficiency, effectiveness, impact, and sustainability of FRA results expressing your views?
13. How do you view the position of FRA considering the large number of global remote sensing programmes looking at land use and land use change monitoring, (University of Maryland, Google, NASA, ESA, etc)
14. Etc..

2. With senior staff in FO

Focus of questions:

- Process of FRA (fundamentals of strategy for FRA, frequency and thematic coverage of FRA, country reporting, remote sensing survey, partnership, etc..)
- Actual approach to FRA (pros and cons and needs for improvement)
- Information quality and users' requirements and expectations
- Does FAO view remote sensing as a strategic tool, and if so, what are the plans for internal, resourcing, investment and coordination i.e within FAO since a number of programmes use remotes sensing?
- In-house collaboration and senior level involvement in FRA decision making
- Resources mobilization strategy for FRA

Type of questions:

1. Is FAO satisfied with ongoing collaboration on FRA with different partner institutions including non-governmental organisations, countries and the private sector?
2. What FAO FRA should do to improve international partnership on FRA
3. How satisfied is FO with in-house collaboration on FRA
4. Did FAO capture the real needs of the partner institutions and countries and has FAO worked to meet such needs adequately?
5. How do you qualify the relation between the forestry information related programmes like FRA, NFMA and UN REDD? Is FAO satisfied with the actual arrangements of support to memberships in resources monitoring and assessment including for climate change and FRA?
6. Does FO have plan to organise its programmes of support to information generation at the national level like NFMA and UN REDD and collection of data and information at the global level e.g. FRA? How?
7. What strategy FO has for resources mobilisation for FRA
8. Etc.....

3. With people from the selected countries

Focus of questions:

- Usefulness of FRA information to country's decision making
- FAO approach to FRA data collection through national report and remote sensing
- Appropriateness of FAO's programme of capacity development to countries
- Usefulness of FAO's reporting framework to country's reporting to the international convention and processes

Type of questions:

1. Are you familiar with the global FRA of FAO?
2. If yes, how did you get to know FRA?
3. Being information provider at the global level, how do you consider the relevance of the FRA information to your country's needs for decision making in forestry, e.g. policies and strategies, SFM, etc?
4. Can you mention some references in your country where FRA information was used
5. FRA played certain role in capacity development for reporting on forests to the international processes, was that capacity building appropriate and tailored to your country needs?
6. FAO worked with its international and regional partners to harmonise the forest related terms and definitions. Did the harmonised reporting framework reduce in any way the reporting burden on your country to the international processes?

7. FAO has introduced new component to the global FRA process which is the global remote sensing survey. How do judge the relevance of the remote sensing survey to your country's needs for forest and land use change monitoring?
8. How many tiles of the global RSS fall in your country? Do you think that your country will use these tiles for future monitoring of forest cover change?
9. FAO has held series of workshops to support countries report to FRA. How did these workshops benefit your country and what else can be done to support your country in this process in better way?
10. How do you see the continuation of your country's role in FRA in the future?
11. Etc.....

4. With Funding agencies' representatives

Focus of questions:

- Project monitoring by donors
- Efficiency and effectiveness of FRA in project implementation
- Sustainability and impact of FRA achievements

Type of questions:

1. Did FRA 2010 (and 2015?) meet donors expectation in terms of generated knowledge and information based on harmonized reporting framework and global remote sensing survey a
2. Did FAO meet donors expectations on capacity building delivered to developing countries for forest assessment, monitoring and reporting following a common framework and an agreed methodology?
3. Did FRA conduct the right activities and applied the best strategy for FRA 2010 and FRA 2015?
4. Has FRA been efficient in conducting FRA 2010 and FRA2015 and in implementing the EU funded project?
5. Did FAO follow a satisfactory communication strategy on the project progress and achievements?
6. Did FAO manage well the FRA programme and implement efficiently the funds provided by donors? If not, what happened and what should have been done to improve efficiency and effectiveness
7. What should FAO do more to improve FRA results to meet broader users' needs at the national and global levels?
8. From what you know, did FRA 2010 make any impact on SFM at the global and country levels decision making?
9. Are the outcomes of FRA 2010 sustainable?
10. How should the RSS be funded going forward?

5. With representatives from partner organizations

Focus of questions:

- Partnership on FRA and involvement in decision making
- FRA's role in reduction of reporting burden on countries
- FRA's role in developing countries' capacities for reporting on forests

Type of questions:

1. Did FAO involve in satisfactory way its international partners in the decision making process on FRA design, development and implementation?

2. Did the work done on the harmonisation of the FRA reporting framework lead to significant alleviation of the reporting burden on countries to the international conventions and processes? How?
3. What FAO can do more to improve national capacities to reach more widely accepted harmonised forest related terms and definitions?
4. What FAO should do more to strengthen partnerships on FRA?
5. How do you see the role of remote sensing for FRA and your own objectives
6. Does the global remote sensing meeting your minimum needs, if not, why?
7. Etc

6. With members of the Advisory Group

Focus of questions:

- Role of the AG in FRA decision making process
- Role of AG in shaping the FRA work plan and in influencing the implementation process

Type of questions:

1. How do you consider FRA team has followed and implemented the advices and recommendations of the Advisory Group?
2. Where FRA team has failed in translating the AG's advices and recommendations into actions?
3. What FRA team should do more to improve the FRA process including strategy, approach and partnerships
4. Etc.....

Annex 7 **OED project performance questionnaire**

OED project scoring matrix													
A. Background information													
Project Title:		Support to the Global Forest Resources Assessment Process											
Project Symbol:		GCP/GLO/218/MUL											
Projec Start Date (EOD) (dd/mm/yy)		1/1/2009											
Project NTE (at time of TORs) (dd/mm/yy)		31/12/2013											
Project LTO		Kenneth MacDicken											
Project Budget (DWH budget at time of TORs):		USD	4,229.087.44										
Type of Project:		TCD	X	Emergency									
Type of Evaluation:		Separate		Joint		Programme							
Timing of Evaluation:		Mid-Term		Final	X	Ex-post							
Mission dates in the country (dd/mm/yy)		From:	10/2/2014		To:	30/4/2014							
B. Assessment of the project - Questions and issues that require scoring are intended to read as "assess the degree to which...."													
Item No	Question/Issue				Item included			Scoring*					
					Yes	No	NA/NR	1	2	3	4	5	6
I. Project Relevance to:													
1	<i>National/regional development priorities, programmes, needs of the population</i>				x						x		
2	<i>FAO Country Programming Framework</i>						x						
3	<i>FAO Global Goals, MDGs, Strategic Objectives and Organizational Results (list relevant and score)</i>										x		
3.1	Core functions 2010-13 a &b				x							x	
3.2	MDG 7: Ensure environmental sustainability (Indicator 7.1: Proportion of land area covered by forest)				x								x
3.3	SO: E: Sustainable Management of Forest and Trees (New SO 2: Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner)				x								x
3.4	OR E01: Policy and practice affecting forests and forestry are based on timely and reliable information				x								x
4	<i>FAO Core Functions (list relevant and score)</i>												
4.1	a: Monitoring and assessment of long-term and medium-term trends and perspectives				x								x
4.2	b: Assembly and provision of information, knowledge and statistics				x								x

4.3	h: Partnerships and alliances	x							x	
5	Clarity, robustness and realism of the Theory of Change	x						x		
6	Quality and realism of project design	x						x		
6.1	<i>Quality of the Logical Framework - validity of indicators, assumptions and risks</i>	x						x		
6.2	<i>Approach and methodology - stakeholder and beneficiaries identification and analysis</i>	x							x	
6.3	<i>Duration</i>	x							x	
6.4	<i>Institutional set-up and management arrangements</i>								x	
	II. Effectiveness of outputs and outcomes	x							x	
7	Outputs	x							x	
7.1	<i>Extent to which the expected outputs have been produced</i>	x							x	
7.2	<i>Quality of produced outputs</i>	x							x	
7.3	<i>Timeliness of produced outputs</i>	x							x	
8	Outcomes	x							x	
8.1	<i>Actual or potential achievement of outcomes</i>	x							x	
9	Feed-back loop for normative - knowledge products								x	
9.1	<i>Use by the project</i>								x	
9.2	<i>Actual or potential contribution</i>								x	
	III. Efficiency and Effectiveness of Project Implementation Process	x							x	
10	Management and implementation	x							x	
10.1	<i>Quality, realism and focus of workplan</i>	x							x	
10.2	<i>Assessment of delivery, causes and consequences of delays and of any remedial measure taken</i>	x							x	
10.3	<i>Monitoring and feed-back loop into improvement management and operations</i>								x	
10.4	<i>Staff management</i>	x							x	
10.5	<i>Development and implementation of an exit strategy</i>				x					
11	Institutional set-up	x							x	
11.1	<i>Admin. and technical support by FAO HQ, regional, sub-reg. and country office</i>	x							x	
11.2	<i>Institutional set-up, internal review processes, coordination and steering bodies</i>	x							x	
11.3	<i>Input and support by the Government/s and resource partners</i>	x							x	
12	Assessment of financial resource management								x	
12.1	<i>Adequacy and realism of budget allocations to achieve intended results</i>	x							x	

12.2	<i>Adequacy and realism of Budget Revisions in matching implem. needs and prj objectives</i>	x								x	
12.3	<i>Rate of delivery and budget balance at the time of the evaluation and in relation to work-plans</i>	x								x	
	IV. Analysis of the application of the UN common country programming principles							x			
13	Gender equality	x								x	
13.1	<i>Extent to which gender issues were reflected in prj objectives, design and identif. of beneficiaries</i>	x								x	
13.2	<i>Extent to which gender issues were taken into account in project implementation and management</i>	x									x
13.3	<i>Extent to which gender relations and equality are likely to be affected by the initiative</i>	x								x	
14	Extent and quality of Project/Programme Work on Capacity Development at										x
14.1	<i>individual</i>	x									x
14.2	<i>organizational/institutional</i>	x								x	
14.3	<i>enabling environment</i>	x								x	
14	Analysis of the adoption of the Human-Rights Based Approach		x								
15	Design, implementation and effects on results and sustainability of partnerships and alliances									x	
16	Analysis of how environmental impacts were taken into consideration and addressed		x								
17	Extent of compliance with the Humanitarian Charter and Minimum Standards (emergency projects)		x								
	V. Impact										
18	Actual/potential impact on people	x								x	
19	Actual/potential impact on institutions	x									x
20	Contribution to FAO SOs and Organizational Outcomes	x									x
21	Contribution to FAO Core Functions	x									x
	VI. Sustainability	x								x	
22	Technical, economic and social	x								x	
23	Institutional uptake and mainstreaming of newly acquired capacities	x								x	
24	Diffusion among beneficiaries	x									x
	VII. Overall project performance	x									
	VIII. Recommendations(not for scoring)										
List	Addressed to:										

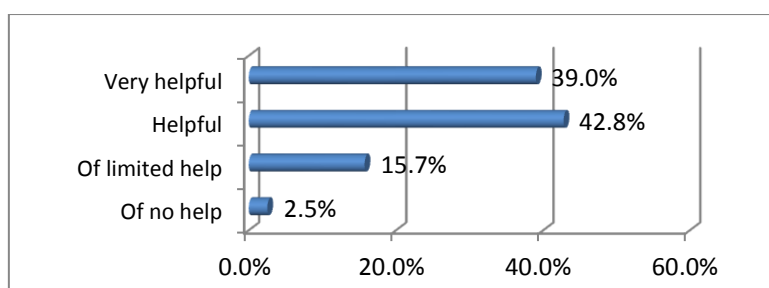
	IX. Lessons learned (not for scoring)	
List		

Scoring* 1 very poor; 2 poor; 3 inadequate; 4 adequate; 5 good; 6 excellent

Annex 8 Main results of the E-Survey for the final evaluation of the EC Project

The E-survey was distributed online to 787 people in member countries including the national correspondents to FRA and the remote sensing focal points. Three weeks were given to each to respond online. 173 people (22%) have responded and provided valuable feedback. The number of respondents is well above the threshold of acceptable representative sample. In their responses, the respondents refer to FRA in general with certain focus on the most recent report of FRA 2010 which was supported by the EC project. The purpose of the survey was to obtain feedback from the main customers of FRA information which are the countries. It was intended to understand the relevance of FRA to countries' needs, the role of FAO FRA in improving the information base in the countries and in developing reporting capacity on forest, the role of FRA in reducing the reporting burden on countries, and the likely impact of the FRA information on sustainable forest management,

1. Is FRA helpful for your country?

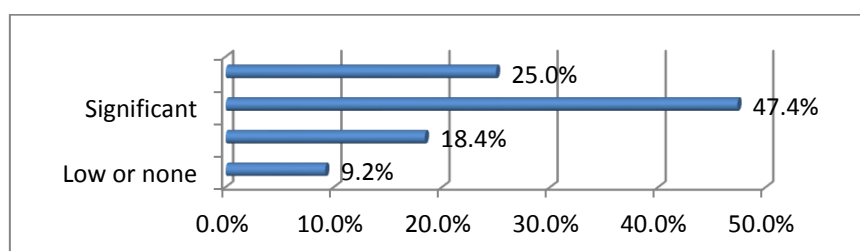


Nearly 82% of the respondents consider FRA helpful to very helpful to their countries. This shows the relevance of the FRA information and technology transfer to needs

- Could you cite any examples of national policy legislations or operational guidelines that have benefitted either from the FRA country report of your country or from the Global FRA report?

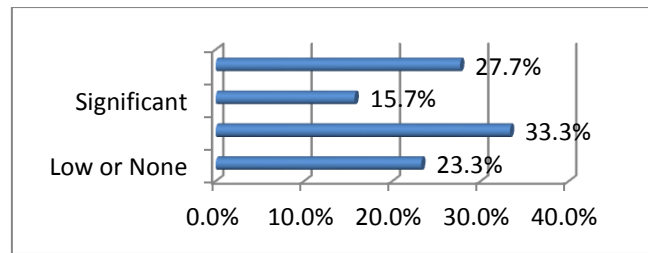
➤ **134 different uses referred to.**

2. How relevant is the information provided by the global FRA of FAO to sustainable forest management in your country?



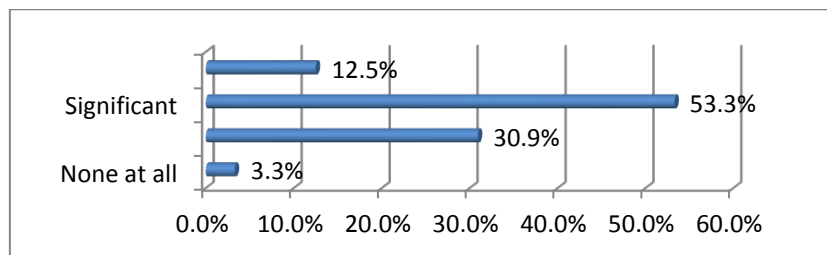
Despite that FRA is generally of global nature, it has created at the countries level a dynamic for reporting on national forests as well as knowledge for sustainable forest management. 72.4% of the respondents consider that FRA information is relevant to highly relevant to countries' effort for sustainable forest management.

3. To what degree does your country use FRA information for decision making and policy formulation?



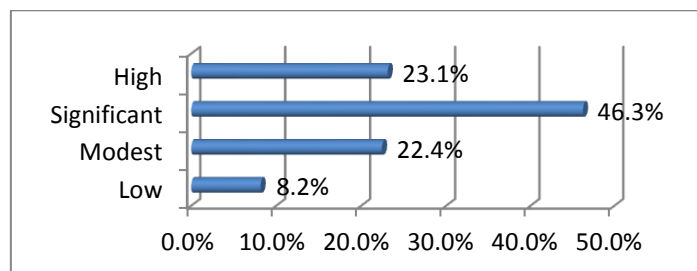
This question is very specific mainly related to the use of FRA information for policy formulation. Policy formulation is a rare event in many developing countries. High number of responses for this question is not expected. Already 43.4% inform that FRA information has been used for decision making and policy formulation, which seem high for a relatively narrow use

4. How much of an impact would you say the information of the global FRA of FAO has had in your country?



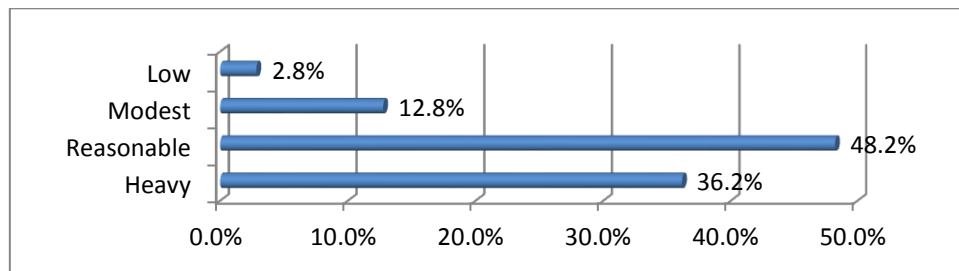
The term “impact” is generally not easily to apprehend. Despite that, nearly 65% of the respondents consider that the information of the global FRA of FAO makes impact in their countries. Considering this level of responses, the EC project for its support to FRA 2010 and FRA 2015 is making an impact at the national level

5. What is the suitability of the harmonized FRA reporting framework to your country’s reporting to the international processes, including the Convention on Biological, the United Nations Framework Convention on Climate Change, United Nations Forum on Forests and the Millennium Development Goals process?



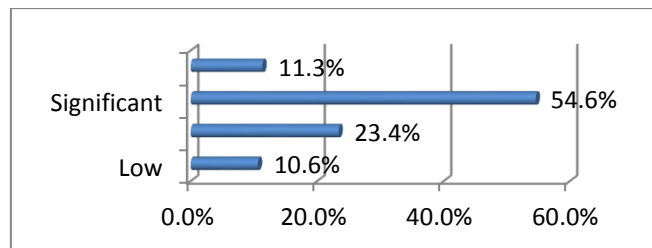
69.4% of the respondents consider the harmonized FRA reporting framework suitable to their countries’ reporting to the international processes, including the Convention on Biological, the United Nations Framework Convention on Climate Change, United Nations Forum on Forests and the Millennium Development Goals process. This is a direct outcome of the EC project

6. Considering the relevance and usefulness of the FRA data and information to your country, how do you judge the workload to compile and submit your country data to the FRA?



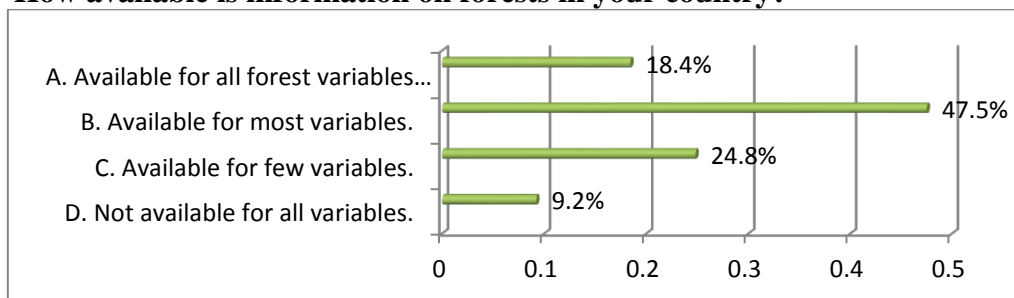
Even if the harmonized FRA reporting framework is considered suitable to the countries' reporting to the international processes, most countries (84.4%) consider the workload to compile and submit country data to the FRA is reasonable to heavy. It does not seem to say that the harmonization is not making a positive impact, but it rather due to the already high number of variables countries have to report especially when the information is not available at the national level. This is the area where FRA needs to work with its partners to find way to reduce the reporting burden.

7. To what degree does the harmonized FRA reporting framework reduce the reporting burden on your country to the international processes?



Even the workload is considered reasonable to heavy by 84.4% of the respondents, 65.9% agree that the harmonized FRA reporting framework has reduced the reporting burden on their countries to the international processes. This is a direct outcome of the EC project

8. How available is information on forests in your country?

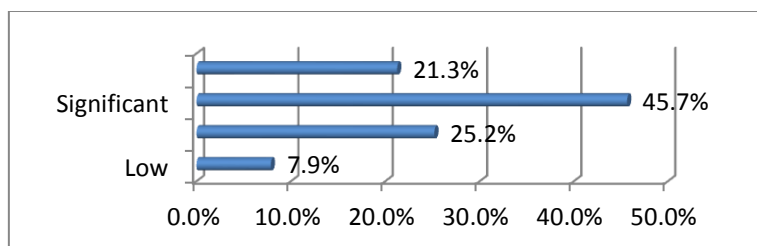


The availability of information at the country level is apparently still an issue. 81.6% of the respondents (B, C and D) inform that their countries do not know on their forests every aspect of information requested by FRA. Support to national forest monitoring and assessments is a pressing need in most developing countries

9. Check the source of information in your country

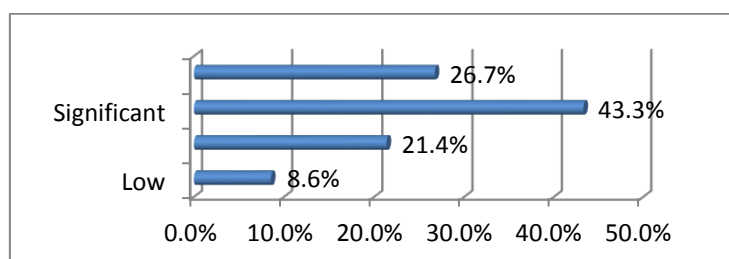
Sources	Answers
NFI (Specify date and coverage of NFI)	18
Maps (Specify purpose, coverage and date of the mapping)	16
Expert opinion (Explain how the statistics were created and the responsible institutions)	14
All sources (Indicate the sources by order of importance)	12

10. How do you assess the quality of the forestry information in your country?



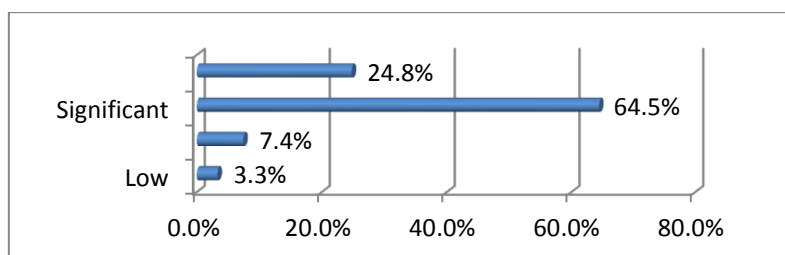
The scope of information in countries is variable. It goes from few set of variables to large amount of information. On the existing information, 67% of the respondents consider the quality is significant to high. This is questionable.

11. To what degree does FRA contribute to improving the availability and scope of forestry information in your country?



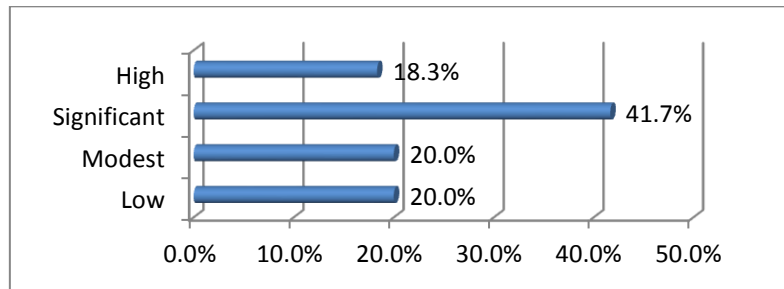
70% of the respondents recognize the role of FRA in improving the availability and scope of forestry information in their countries. This is expected, because in many developing countries, without the commitment of reporting to FRA, the information would have been be more dispersed and fragmented and of limited use

12. To what extent does FRA cover all needed forest variables for national and global uses?



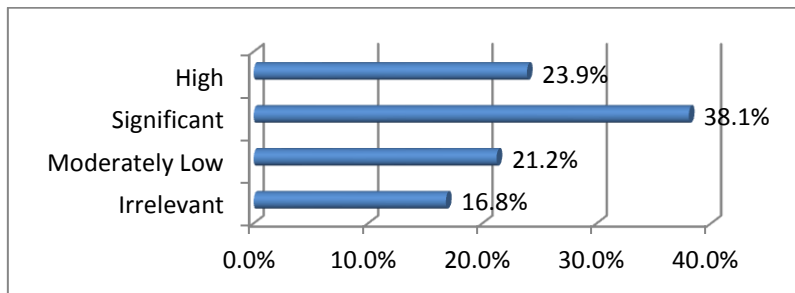
For 89.3% of the respondents, FRA information covers all needed forest variables for national use. Apparent high relevance of FRA to countries' needs.

13. How would you rate the adequacy of the FAO capacity development programme to your country's needs for reporting on forests?



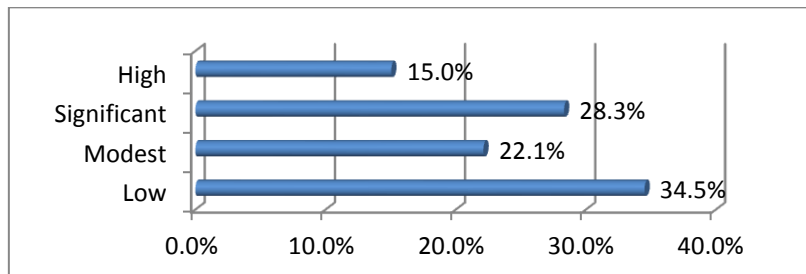
60% of the respondents for the countries deem that the FAO FRA capacity development programme meets their countries' needs for reporting on forests. This comparable to the messages received during the interviews of the countries' representatives. The other 40% include responses from developed countries and countries in transition

14. What is the relevance of the FRA remote sensing survey for providing needed information on the state of forests and land use change over time in your country?



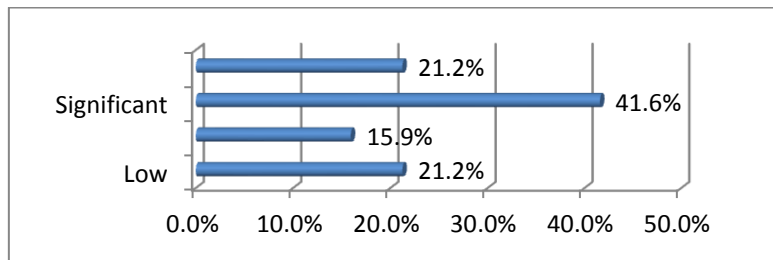
Generally countries consider that the FRA RSS can help them improve their information base on the state of forests and land use change over time. 62% of the respondents reflect such appreciation. This calls for more effort by FRA to address and respond to countries information needs by means of remote sensing

15. What was the quality of training provided by FAO for capacity building in your country in remote sensing as part of the global remote sensing survey?



While capacity building provided by FRA on remote sensing is seen useful (43.3% of respondents) by some countries, the need for more effort by FAO and its partners like EC JRC is high

16. Considering your country circumstances, to what degree is appropriate the remote sensing design and methodology used for the FRA?



Nearly 62% of the respondents consider the design and methodology used by FRA for the remote sensing survey appropriate to their country's needs. The issue raised by many interviewed nationals consider the sampling units falling in their countries are not enough to generate reliable information. The countries generally support the RSS but with more sample units at the national level or for a wall-to-wall mapping. The countries concurrence with the RSS methodology seems to focus on the image processing and interpretation techniques.

Identification of intended Impacts

Because the EC Project design falls within the FRA framework, it means that the assessment of outcomes to impacts should also be assessed within the FRA framework and FAO's Strategic Objective E (Strategic Framework of FAO (2009-2013)). This objective places the FRA programme under the Strategic Objective E (SO E): Sustainable management of forests and trees. More specifically, the programme is accounted for under Organizational Result E1 – Policy and practice affecting forests and forestry are based on timely and reliable information.

The EC Project was implemented with an overarching goal of contributing to better forest management with two key outputs (a) improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry, and (b) increased capacity in developing countries for forest assessment, monitoring and reporting following a common framework and an agreed methodology. The outcome of the EC is intended to be “well-informed and better decision-making related to forests and forestry based on comprehensive, timely and accurate information”. Within FAO, the FRA Programme is placed under Strategic Objective E (SO E): Sustainable management of forests and trees. More specifically, the FRA Programme is accounted for under Organizational Result E1 – Policy and practice affecting forests and forestry are based on timely and reliable information. While this is not an evaluation of FRA, the impact of the EC Project is in fact dependent upon the ability of the FRA Programme to meet performance objectives under Organizational Result E1

The fact that the project did not have an explicit statement of intended impact but rather a goal of contributing to organisational result areas means the evaluation looks at how the project contributes to the FRA performance objectives. However, the project document lists a set of impact indicators which are;

- a. A reduction in the current rate of deforestation;
- b. An increase in the area of forest under sustainable forest management worldwide;
- c. An increase in the area of forest in protected area system;
- d. A reduction in the current rate of loss of carbon stocks in forests;
- e. Harmonized and effective forest assessment, monitoring and reporting systems in place at national, regional and global levels.

On the basis of these impact drivers, the project in fact only contributes directly to FAO Organizational Result E1. These impact drivers (except (e)) are in fact a result achievement of intermediaries driven by national circumstances and the existence of optimal conditions such as functional national institutions, legal frameworks, proper law enforcement, well-educated stakeholders, policies targeting drivers and agents of deforestation and forest degradation as economic instruments that support low carbon economies etc. It is good that these impact drivers are stated as the broader organisation (FAO) is in a position to work at the level of influencing national policies through normative products developed over many decades. However, the ability of the EC project to have a direct impact based on the stated outcome would be limited because the project scope is related to the provision of information and knowledge and building capacity for a component of the overall picture. The likelihood for greater impact would be enhanced by working through the intermediaries at national

level. However, it must be acknowledged that FAO and indeed the FRA team simply does not have the capacity to work at the sub-national level.

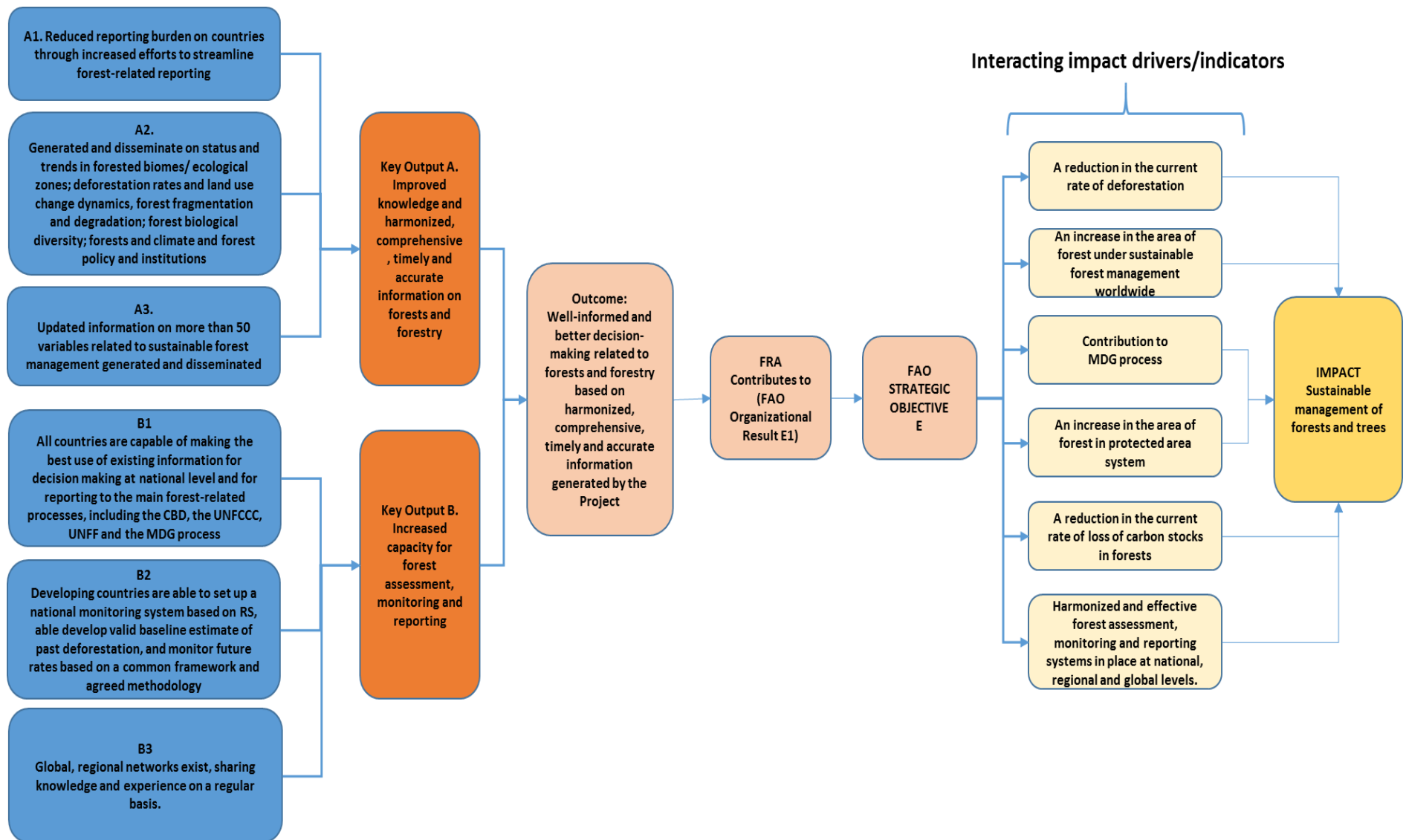
The conclusion from this is that the selection of activities, particularly the capacity building and the alliances, enhance the opportunity to indirectly contribute towards the stated outcome. It is important though to recognise the limitation of stating impact drivers that too far beyond the project scope. It can be seen as over-ambitious, raises unnecessary expectations, and difficult to measure progress.

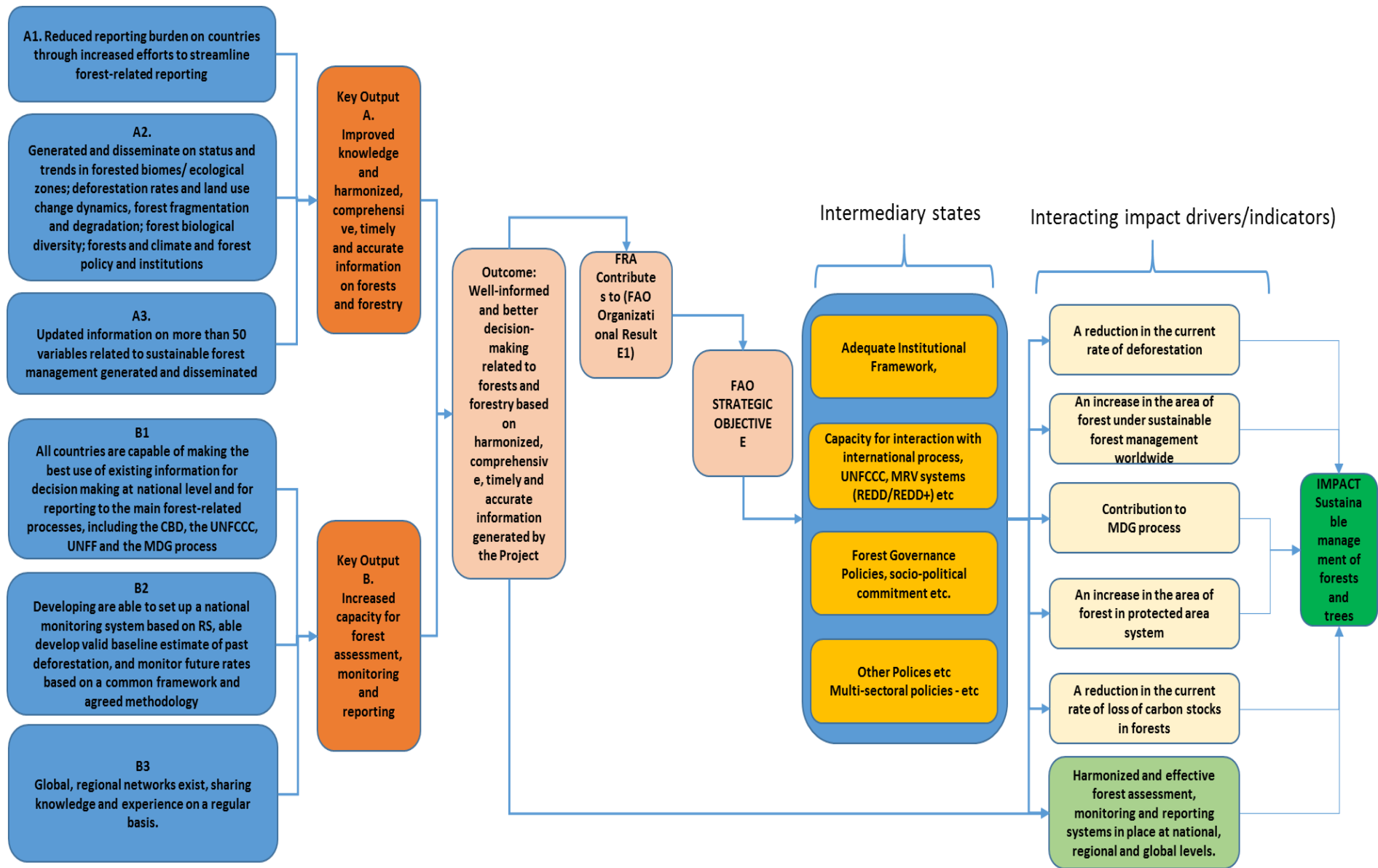
Project Logic

The EC Project has two Key Outputs (A) Improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry and (B) Increased capacity for forest assessment, monitoring and reporting are clearly in line with FAO strategic objectives.

Verifying the project logic following the outcomes to impacts reveals a gap or rather a distant connection between stated indicators and the contribution to FRA performance measures. The stated outcome and indeed the outputs have a rather indirect link to the interacting impact indicators (those stated above). For instance, the causes of deforestation and the interventions necessary to reduce deforestation rates largely reside within national policies, effectiveness of institutional arrangements and forest governance, socio-political environment etc. These are domains that FRA, and indeed the EC project do not necessary influence but rather provide normative products that support these structures to identify necessary interventions. So in fact the proper functioning of institutions, legal framework, law enforcement, policies, and implementation of NFMAs, etc, form intermediaries between the EC Project outcome and the intended impact of FRA.

The first flow chart below illustrates the project logic as designed at the beginning and interpreted by the ET. The project log frame is somewhat explicit up to the outcome level where it contributes to the overall FRA objectives. But beyond the outcome, it is less explicit because the impact chain becomes imbedded in the FAO strategic objectives. So the assumption here is that FAO execution of strategic objectives will indeed enable the achievement of the intended impact as illustrated in the second flow chart below.





One conclusion from this is that the chains of result could be robust with more emphasis on outputs that strengthen FRA – as is the purpose of the project – “supporting FRA”. Sustainable and better management of forest is a national and sub-national programmatic level mechanism requiring national operationalization”. Since the overarching goal of the Project is stated as “contribute to better forest management”, it should be clear in the project design that outputs are indicators of how the EC Project strengthen FRA which is a flagship FAO programme. While the ideal scenario would be that the EC Project’s has actual contribution to better forest management, the impact chain is long.

Analysis of project outcome-impact pathway

Because of the conclusion that the project outcome is somewhat distant from the intended outcome, it is then logical to analyse how the outputs have in fact contributed to FRA objectives which in turn is likely to have closer contribution to the impact.

Impact drivers are essential catalytic changes that are required to convert outcomes to impacts and should ideally be in the project’s control or sphere of influence. But then for this project, the impact drivers are not in the project’s control as stated above except “Harmonized and effective forest assessment, monitoring and reporting systems in place at national, regional and global levels”. However, even this driver has some limitations as monitoring systems are a result of national interest and investment – or more so, capacity to build such systems.

The Project consists of five modules from which it was expected that the following results would be achieved:

The reporting burden on countries will have been reduced through increased efforts to harmonise forest-related terms and definitions and to streamline forest-related reporting

New knowledge will have been generated and disseminated - in particular on aspects related to status and trends in forested biomes/ecological zones; deforestation rates and land use change dynamics, forest fragmentation and degradation; forest biological diversity; forests and climate change and forest policy and institutions

All countries will be capable of making the best use of existing information for decision making at national level and for reporting to the main forest-related processes, including the CBD, the UNFCCC, UNFF and the MDG process
Developing countries throughout the world will be able to set up a national forest monitoring system based on remote sensing in order to provide a valid baseline estimate of past deforestation rates and monitor future rates and thus be able to benefit from a potential incentive scheme under the UNFCCC to reduce emissions from deforestation and forest degradation in developing countries

Vibrant global and regional networks of forest monitoring specialists exist sharing knowledge and experience on a regular basis.

The set of assumptions in each of these result areas are important to consider and influence the likelihood for achieving intended impact. There are two problem statements made

A. The need for harmonization of forest-related reporting

B. The lack of adequate information

The project document adequately identifies and outlines the problem statements and the five modules clearly address the problems statements through a comprehensive consultation

process and collaboration with international institutions involved in Multilateral Environmental Agreements (especially the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the Non-legally Binding Instrument on All Types of Forests of the United Nations Forum on Forests (UNFF)); to regional bodies and to regional action plans such as on Forest Law Enforcement Governance and Trade (FLEGT); and to FAO.

From this evaluation, the outcome to impact is illustrated in the diagram below reflecting a revised identify the intermediaries in relation to the interacting impact drivers. The revised theory of change is presented in the diagram below incorporates intermediary states and the interaction between the EC Project outcomes to FRA and FAO objectives.

The conclusion here is that, taking this approach, noting that remote sensing technology increases the utility of FRA, would support strategic decisions to ensure the normative products produced from the project are sustained and continuously improved. Remote sensing should be viewed as part of normal FRA/FAO business to deliver components of say UN-REDD, NFMA, etc, with a focus on international collaboration with the likes of JRC, space agencies, data providers, academia and others.

Analysis of Assumptions

At the time of designing the project there was a high degree of uncertainty regarding a number of international process that would eventually affect the impact drivers. However, there seems to have been limited in depth analysis of the context and national circumstances particularly in developing countries. It is not very easy to understand the relationship between the Indicators and the Assumptions stated below in relation to the intended. This is symptomatic of the disconnect between the impact and the project.

Design Summary	Indicators / Targets	Data Sources	Assumptions
<u>Impact</u> Better managed forests	A reduction in the current rate of deforestation An increase in the area of forest under sustainable forest management worldwide An increase in the area of forest in protected area system A reduction in the current rate of loss of carbon stocks in forests Harmonized and effective forest assessment, monitoring and reporting systems in place at national, regional and	The Global Forest Resources Assessment 2020	Decisions are effectively implemented The mechanism to provide incentives for reducing deforestation in developing countries currently under discussion in UNFCCC is implemented effectively

	global levels		
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On the basis of the revised theory of change in the above diagram, it is possible to list a number of principal assumptions that can be related to the chosen activities and their long-term sustainability. These include;

- Financial capacity to maintain introduced techniques and processes
- Effectiveness of national institutional framework and that national priorities recognise the forest sector as playing a critical role in poverty alleviation
- Socio-political environment
- Technical capacity

A critical analysis and explicit elaboration of such assumptions is somewhat missing from the log frame and future project designs could benefit from a more robust analysis of assumptions to avoid stating over-ambitious targets which in turn unnecessarily raise expectations.

Overall synthesis

The weaknesses in the project logic do not necessarily undermine the project relevance or any intermediate outcomes. This analysis highlights some opportunities to design projects that will carry forward and support the sustainability of important normative products or outputs from the EC project which can only enhance FAO's comparative advantage as the recognised source of global forest information. The analysis should help refine the strategy for implementing future projects or activities that further enhance FRA.

As with any project, it is necessary to avoid over-ambitious indicators and results chains from that are not well linked to impacts. Intermediary states are unlikely to be achieved and resultant impacts are unlikely to be realised without further and significant investment in a modified RSS and further improvements to the FRA underlying technology and reporting systems. This status is implicitly acknowledged in the programme's investment in a substantial second phase of operations, which could have the prospects of fully achieving outcomes, realising intermediary states and a significantly higher chance of delivering impact if the many challenging assumptions can be met.

<p><u>Outcome</u></p> <p>Well-informed and better decision-making related to forests and forestry based on comprehensive, timely and accurate information</p>	<p>> 100 referrals in national forest policies and programmes to the information generated as part of the FRA 2010 process</p> <p>> 20 referrals in international agreements and decisions to the information generated as part of the FRA 2010</p>	<p>National forest policy and programme documents</p> <p>Documents pertaining to international initiatives and conventions including intergovernmental</p>	<p>Effective dissemination of results</p> <p>Decision-makers receptive to new knowledge and better information</p>
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	process Demonstrated support for effective forest monitoring systems	agreements Periodic reviews of policy documents and of national monitoring systems	
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Annex 10 FAO Strategic Objectives, Results and core functions, 2010-2019

FAO Members Global Goals

Global Goals 2010-13	Global Goals 2014-17
a) Reduction of the absolute number of people suffering from hunger, progressively ensuring a world in which all people at all times have sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life;	Eradication of hunger, food insecurity and malnutrition, progressively ensuring a world in which people at all times have sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life;
b) Elimination of poverty and the driving forward of economic and social progress for all with increased food production, enhanced rural development and sustainable livelihoods;	Elimination of poverty and the driving forward of economic and social progress for all, with increased food production, enhanced rural development and sustainable livelihoods;
c) Sustainable management and utilisation of natural resources, including land, water, air, climate and genetic resources, for the benefit of present and future generations.	Sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations.

FAO Strategic Objectives and Organizational Results 2010-13

Code	Title	Lead Unit
A	Sustainable intensification of crop production	AG
A01	Policies and strategies on sustainable crop production intensification and diversification at national and regional levels	AGP
A02	Risks from outbreaks of transboundary plant pests and diseases are sustainably reduced at national, regional and global levels	AGP
A03	Risks from pesticides are sustainably reduced at national, regional and global levels	AGP
A04	Effective policies and enabled capacities for a better management of plant genetic resources for food and agriculture (PGRFA) including seed systems at the national and regional levels	AGP
B	Increased sustainable livestock production	AG
B01	The livestock sector effectively and efficiently contributes to food security, poverty alleviation and economic development	AGA
B02	Reduced animal disease and associated human health risks	AGA
B03	Better management of natural resources, including animal genetic resources, in livestock production	AGA
B04	Policy and practice for guiding the livestock sector are based on timely and reliable information	AGA
C	Sustainable management and use of fisheries and aquaculture resources	FI
C01	Members and other stakeholders have improved formulation of policies and standards that facilitate the implementation of the Code of Conduct for Responsible Fisheries (CCRF) and other international instruments, as well as response to emerging issues	FI
C02	Governance of fisheries and aquaculture has improved through the establishment or strengthening of national and regional institutions, including RFBs	FIE

C03	More effective management of marine and inland capture fisheries by FAO Members and other stakeholders has contributed to the improved state of fisheries resources, ecosystems and their sustainable use	FIM
C04	Members and other stakeholders have benefited from increased production of fish and fish products from sustainable expansion and intensification of aquaculture	FIM
C05	Operation of fisheries, including the use of vessels and fishing gear, is made safer, more technically and socio-economically efficient, environmentally-friendly and compliant with rules at all levels	FII
C06	Members and other stakeholders have achieved more responsible post-harvest utilization and trade of fisheries and aquaculture products, including more predictable and harmonized market access requirements	FII
D	Improved quality and safety of food at all stages of the food chain	AG
D01	New and revised internationally agreed standards and recommendations for food safety and quality that serve as the reference for international harmonization	AGN
D02	Institutional, policy and legal frameworks for food safety/quality management that support an integrated food chain approach	AGN
D03	National/regional authorities are effectively designing and implementing programmes of food safety and quality management and control, according to international norms	AGN
D04	Countries establish effective programmes to promote improved adherence of food producers/businesses to international recommendations on good practices in food safety and quality at all stages of the food chain, and conformity with market requirements	AGN
E	Sustainable management of forests and trees	FO
E01	Policy and practice affecting forests and forestry are based on timely and reliable information	FOM
E02	Policy and practice affecting forests and forestry are reinforced by international cooperation and debate	FOE
E03	Institutions governing forests are strengthened and decision-making improved, including involvement of forest stakeholders in the development of forest policies and legislation, thereby enhancing an enabling environment for investment in forestry and forest industries. Forestry is better integrated into national development plans and processes, considering interfaces between forests and other land uses	FOE
E04	Sustainable management of forests and trees is more broadly adopted, leading to reductions in deforestation and forest degradation and increased contributions of forests and trees to improve livelihoods and to contribute to climate change mitigation and adaptation	FOM
E05	Social and economic values and livelihood benefits of forests and trees are enhanced, and markets for forest products and services contribute to making forestry a more economically-viable land-use option	FOE
E06	Environmental values of forests, trees outside forests and forestry are better realized; strategies for conservation of forest biodiversity and genetic resources, climate change mitigation and adaptation, rehabilitation of degraded lands, and water and wildlife management are effectively implemented	FOM
F	Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture	NR
F01	Countries promoting and developing sustainable land management	NRL
F02	Countries address water scarcity in agriculture and strengthen their capacities to improve water productivity of agricultural systems at national and river-basin levels including transboundary water systems	NRL
F03	Policies and programmes are strengthened at national, regional and international levels to ensure the conservation and sustainable use of biological diversity for food and agriculture and the equitable sharing of benefits arising from the use of genetic resources	NRD
F04	An international framework is developed and countries' capacities are reinforced for responsible governance of access to, and secure and equitable tenure of land and its interface with other natural resources, with particular emphasis on its contribution to rural	NRC

	development	
F05	Countries have strengthened capacities to address emerging environmental challenges, such as climate change and bioenergy	NRC
F06	Improved access to and sharing of knowledge for natural resource management	OEK
G	Enabling environment for markets to improve livelihoods and rural development	ES
G01	Appropriate analysis, policies and services enable small producers to improve competitiveness, diversify into new enterprises, increase value addition and meet market requirements	
G02	Rural employment creation, access to land and income diversification are integrated into agricultural and rural development policies, programmes and partnerships	ESW
G03	National and regional policies, regulations and institutions enhance the developmental and poverty reduction impacts of agribusiness and agro-industries	
G04	Countries have increased awareness of and capacity to analyse developments in international agricultural markets, trade policies and trade rules to identify trade opportunities and to formulate appropriate and effective pro-poor trade policies and strategies	EST
H	Improved food security and better nutrition	ES
H01	Countries and other stakeholders have strengthened capacity to formulate and implement coherent policies and programmes that address the root causes of hunger, food insecurity and malnutrition	ESA
H02	Member countries and other stakeholders strengthen food security governance through the triple-track approach and the implementation of the Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security	ESA
H03	Strengthened capacity of member countries and other stakeholders to address specific nutrition concerns in food and agriculture	AGN
H04	Strengthened capacity of member countries and other stakeholders to generate, manage, analyse and access data and statistics for improved food security and better nutrition	ESS
H05	Member countries and other stakeholders have better access to FAO analysis and information products and services on food security, agriculture and nutrition, and strengthened own capacity to exchange knowledge	ESA
I	Improved preparedness for, and effective response to, food and agricultural threats and emergencies	TC
I01	Countries' vulnerability to crisis, threats and emergencies is reduced through better preparedness and integration of risk prevention and mitigation into policies, programmes and interventions	TCE
I02	Countries and partners respond more effectively to crises and emergencies with food and agriculture-related interventions	TCE
I03	Countries and partners have improved transition and linkages between emergency, rehabilitation and development	TCE
K	Gender equity in access to resources, goods, services and decision-making in the rural areas	ES
K01	Rural gender equality is incorporated into UN policies and joint programmes for food security, agriculture and rural development	ESW
K02	Governments develop enhanced capacities to incorporate gender and social equality issues in agriculture, food security and rural development programmes, projects and policies using sex-disaggregated statistics, other relevant information and resources	ESW
K03	Governments are formulating gender-sensitive, inclusive and participatory policies in agriculture and rural development	ESW

K04	FAO management and staff have demonstrated commitment and capacity to address gender dimensions in their work	ESW
L	Increased and more effective public and private investment in agriculture and rural development	TC
L01	Greater inclusion of food and sustainable agriculture and rural development investment strategies and policies into national and regional development plans and frameworks	TCI
L02	Improved public and private sector organisations' capacity to plan, implement and enhance the sustainability of food and agriculture and rural development investment operations	TCI
L03	Quality assured public/private sector investment programmes, in line with national priorities and requirements, developed and financed	TCI

FAO Strategic Objectives 2014-17

1	Contribute to the eradication of hunger, food insecurity and malnutrition
2	Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner
3	Reduce rural poverty
4	Enable more inclusive and efficient agricultural and food systems at local, national and international levels
5	Increase the resilience of livelihoods to threats and crises
Objective 6	Technical quality, knowledge and services

FAO Functional Objectives 2014-17

8. Outreach
9. Information Technology
10. FAO Governance, oversight and direction
11. Efficient and effective administration

FAO Core

Functions

2010-13 and 2014-17

Core functions 2010-13		Core functions 2014-17	
a	Monitoring and assessment of long-term and medium-term trends and perspectives		
b	Assembly and provision of information, knowledge and statistics	2	Assemble, analyze, monitor and improve access to data and information, in areas related to FAO's mandate
c	Development of international instruments, norms and standards	1	Facilitate and support countries in the development and implementation of normative and standard-setting instruments, such as international agreements, codes of conduct, technical standards and others
d	Policy and strategy options and advice	3	Facilitate, promote and support policy dialogue at global, regional and country levels
		4	Advise and support capacity development at country and regional level to prepare, implement, monitor and evaluate evidence-based policies, investments and

			programmes
<i>e</i>	Technical support to promote technology transfer and build capacity	5	Advise and support activities that assemble, disseminate and improve the uptake of knowledge, technologies and good practices in the areas of FAO's mandate
<i>f</i>	Advocacy and communication	7	Advocate and communicate at national, regional and global levels, in areas of FAO's mandate
<i>g</i>	Inter-disciplinarity and innovation		
<i>h</i>	Partnerships and alliances	6	Facilitate partnerships for food security and nutrition, agriculture and rural development, between governments, development partners, civil society and the private sector

FAO cross-cutting themes 2014-17

Gender
Governance

Annex 11 **Budget for the Action (Addendum 1 to the Agreement)**

Budget Component	Latest approved budget		Revised budget as per addendum 1	
	MUL latest approved budget	EU Latest approved budget	Total Budget as per new addendum (including MUL)	EU budget as per new addendum
	EUR	EUR	EUR	EUR
Professional Staff	1761241	794253	2295706	1328719
Remote Sensing Coordinator (P4)	513404	481317	811404	779317
Remote Sensing Training Officer	312936	312936	549402	549402
Forest Resources Information Officer	312936	0	312935	0
Regional focal points (P2)	621965	0	621965	0
General Service Staff	293699	238630	438693	383624
Admin officer (G5)	293699	238630	438693	383624
Consultants	159095	159095	241212	241212
Portal Dev. Consultant	30465	30465	50994	50994
Software Development Consultant	23695	23695	44224	44224
Statistics consultant	50775	50775	50775	50775
Unidentified consultants	54160	54160	95219	95219
Contracts	1870924	884584	836095	328345
Regional validation of land cover	499999	0		0
National validation contracts	609300	609300	163636	163636
Special studies	338500	0	338500	0
Information products & translations	135400	67700	115400	47700
Publications, training materials, maps	169250	169250	88994	88994
Support to regional networks	101550	21409	101550	0
Project Evaluation	16925	16925	28015	28015
Travel	284340	67700	495227	278577
Expert Consultation/Definitions	101550		101550	0
Expert Consultation/Kotka VI	101550		101550	0
Miscellaneous travel	81240	67700	292127	278577
Training	1015500	507750	605921	98171
Development of training materials	33850	33850	13850	13850
Global meeting/training session	169250		169250	0
Subregional workshops for remote	473900	473900	84321	84321
Regional workshops for country	338500		338500	0
Non-expendable equipment	23695	23695	34015	34015
Non-expendable equipment	23695	23695	34015	34015
Technical Supp. Services	139843	139843	113843	113843
Senior FO Coordinator	43580	43580	43580	43580
Remote Sensing Officer	43580	43580	35580	35580
IT Officer (Web)	25603	25603	7603	7603
Other Operating/Administrative	27080	27080	27080	27080
General Oper. Expenses	121860	81646	130905	90691
Miscellaneous GOE	67700	45359	74180	51839
Housekeeping costs	54160	36287	56725	38852
Sub Total	5670197	2897196	5191617	2897197
Support Costs	396914	202804	363413	202804
TOTAL	6067111	3100000	5555030	3100001

*This refers to funds that are not channelled through FAO and are not subject to Support Costs but for which EuropeAid will sign a separate Administrative Arrangement with the JRC.

For reporting purposes shall only be looked at the headings highlighted in grey shadings.

Payments have been made by instalments, after submission of payment request, supported by narrative and financial report.

	EUR	USD*	Notes
First pre-financing	790 000	\$1,074,829.93	Received in June 2009.
Forecast further instalment of pre-financing	1 180 000	\$1,638,888.89	Received in December 2010
Forecast further instalment of pre-financing	760 000	\$1,013,333.34	Received in December 2011
Forecast further instalment of pre-financing	215 000		Pending
Forecast final payment	155 000		Pending

*Calculated through the official UN Exchange rate of the month.

Annex 12 **Logical Framework**

Outputs	Indicators / Targets	Progress/Achievements	Timing/dates
A. Improved knowledge and harmonized, comprehensive, timely and accurate information on forests and forestry			
A1. Reduced reporting burden on countries through increased efforts to streamline forest-related reporting	Information from FRA 2010 updated and used for FRA 2015 and reporting to other forest-related organizations and reporting processes.	Information from FRA 2010 used by FAO and ITTO for the Three Basins report and meeting.	Three Forest basins Summit meeting http://www.fao.org/forestry/fra/70893/en and report http://www.fao.org/docrep/014/i2247e/i2247e00.pdf
		Integrated reporting through a new Collaborative Forest Resources Questionnaire (CFRQ) is achieved with regional partners (UNECE/Forest Europe, ITTO, Montreal Process and OFAC).	Started early in 2012 and completed in 2013.
		Design and development of an internet-based data entry and review system to improve FRA reporting and review process.	Conceptual design and functionality scoping in early in 2012. FRIMS is available online at http://foreststats.org/fra2015/logout and a standalone version has been provided to countries with difficulties
A2. New knowledge generated and disseminated on status and trends in forested biomes/ ecological zones; deforestation rates and land use change dynamics, forest fragmentation and degradation; forest biological diversity; forests and climate and forest	New information generated, analysed and disseminated through the FRA 2010 Report, maps, reports on special studies and policy briefs.	Results of RSS completed and disseminated both at Asia-Pacific Forestry Commission Meeting and with Russia Federal Forestry Agency in Vologda, Russian Federation.	
		Report on the outcome of the global remote sensing survey available and data incorporated into the FAO database.	Completed. http://www.fao.org/forestry/fra/remotesensingsurvey/en/ (+..../fr; .../es)

policy and institutions	Maps of forest area including by ecological zone prepared.		New map of World's forest 2010 released by FAO in Dec 2010 http://www.fao.org/forestry/fra/80298/en/ (+..../fr; .../es)
	<p>New information generated, analysed and disseminated through a joint technical paper with the EC Joint Research Centre.</p> <p>Peer-reviewed journal article produced and accepted on project-supported methods.</p> <p>Landsat data for 2010 processed for sites used in RSS2010 analysis.</p>	<p>Two technical reports published in the open literature.</p> <p>RSS 2010 sites covered by 1990, 2000 and 2005 images are processed with 2010 data..</p>	Completed in 2013
A.3 Updated information on more than 50 variables related to sustainable forest management generated and disseminated	> 200 high quality country reports available on-line and the information incorporated into the FAO database.		Completed and reports released on-line in 2010

	Information from FRA 2010 updated and used for FRA 2015 and reporting to other forest-related organizations and reporting processes.	Integrated reporting through a new Collaborative Forest Resources Questionnaire (CFRQ) is achieved in cooperation with regional partners (UNECE/Forest Europe, ITTO, Montreal Process and OFAC).	CFRQ agreed with regional partners during the meeting in ISPRA in March 2012. More details to be discussed and defined during the course of 2012.
	Data requirements fully reviewed and disseminated for both FRA reporting and integrated data collection through the CFRQ.	CFRQ agreed with regional partners and FRA specifications ready to dispatch to all countries.	Completed in the first quarter of 2013
B. Increased capacity for forest assessment, monitoring and reporting			
B1. All countries are capable of making the best use of existing information for decision making at national level and for reporting to the main forest-related processes, including the CBD, the UNFCCC, UNFF and the MDG process.	More than 150 people trained in reporting on forests, their condition, uses and values.		Completed in 2008.

	Capacity building plans in place for assistance to selected countries for integration of remote sensing into national forest reporting, country level dissemination of results and stakeholder involvement.	Detailed plans completed for global workshop in April 2013, regional and national workshops to follow.	Completed
B2. Developing countries throughout the world are able to set up a national monitoring system based on remote sensing in order to provide a valid baseline estimate of past deforestation rates and monitor future rates based on a common framework and agreed methodology and thus be able to benefit from a potential instrument of the UNFCCC to reduce deforestation in developing countries.	More than 120 people trained in monitoring forest change through remote sensing.	Major effort undertaken through workshops held around the world to get input and review. 57 trained during the 6 workshops held during the reporting period.	Six workshops held during the reporting period (listed above). 19 workshop held, 206 experts trained from 108 countries representing over 98% of the world's forest. Most of these workshops were held in 2010 and in 2011.
	At least five joint workshops planned with UN REDD programme to support integration of remote sensing and national forest reporting methods.	Selected countries use common data sets by 2013 for national forest reporting and climate change reporting purposes.	
B3. Vibrant global and regional networks of forest monitoring specialists exist, sharing knowledge and experience on a regular basis.	More than 120 people members of vibrant global and regional networks of national correspondents further developed and maintained.	National correspondents kept informed through regular newsletters.	Achieved and ongoing

	National and regional networks of correspondents and remote sensing specialists maintained.	Joint workshops conducted in 2013 with remote sensing and national forest reporting in selected regions/countries incorporating 2010 data.	Completed.
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Activities under the 5 modules

Activity	Indicators / Targets	Progress/Achievements	Comments
A. Module 1. Harmonization of terms and definitions and streamlining of reporting			
A1. Expert consultation on forest-related definitions	Expert consultation Held		Completed in 2009 (under separate funding)
B. Module 2. Strengthening the capacity for forest reporting			
B1. Global meeting to launch FRA 2010 and provide training to National Correspondents	Global meeting held to launch FRA 2010 with > 150 participants		Completed in 2008
B2. Ten regional training and data validation workshops for the country reporting process involving > 150 National Correspondents (NCs)	10 regional training and data validation workshops held involving > 150 National Correspondents		Completed in 2008
B3. Technical support to NCs for the preparation of country reports to FRA 2010	> 200 country reports received and reviewed	233 country reports reviewed, finalised and validated in 2009 (of which 187 provided by countries and 46 desk studies prepared by FAO).	233 country reports reviewed, finalised and validated in 2009 and on-line in 2010.

B4. Compilation and analysis of information from the country reports	Information from the country reports compiled and analysed	Completed in early 2010	Data analysis and compilation completed and on FRA website.
B5. Compilation and dissemination of the FRA 2010 report, global statistics, a series of working papers, a policy brief and other information products	Results compiled and disseminated in the form of the FRA 2010 report, a series of working papers, a policy brief and other information products	Key Findings of FRA 2010 (policy brief) released in March 2010, and the final report in October. Both in six languages.	Key Findings of FRA 2010 (policy brief) released in March 2010, and the final report in October. Both in six languages.
C. Module 3. Global remote sensing survey of forests:			
C1. Development of web-based information framework supplied with > 40,000 Landsat image samples	Web-based information framework developed and supplied with > 40,000 Landsat image samples	Extraction and pre-processing of the Landsat and MODIS VCF data for 1990, 2000 and 2005 for 13,689 locations completed under contract by SDSU. All 56,219 samples have been loaded into the project portal website.	Completed and on-line. http://geonetwork4.fao.org/geonetwork/srv/en/fra.home http://globalmonitoring.sdstate.edu/projects/fao/search.html The FRA RSS data portal was completed 2010. http://www.fao.org/forestry/fra/remotesensing/portal
C2. Pre-processing and first-step interpretation of images	Data processed and available for country validation workshops	FAO processing and national for 2010. JRC have also completed most of their processing for 1990-2000 dates including country validation and are working on 2005. Russian Federation processing had to be done by FAO which took additional time and resources.	All image analysis completed in 2010 by FAO and JRC and validation workshops held in 2010 and 2011.

<p>C3. Preparation and dissemination of training material for remote sensing interpretation</p>	<p>Training material for remote sensing interpretation available in 5 languages (English, French, Spanish, Arabic and Russian) and distributed to more than 120 people</p>	<p>Working Paper 155 prepared in English.</p> <p>Training materials produced with presentations in English and French for planned workshops (plus data and software tools).</p> <p>User manual for the JRC land cover/use change validation tool Tool developed in the framework to the JRC TREES-3 project, in support to the remote sensing survey of the global forest resources assessment 2010 of the FAO</p>	<p>Working Paper 155 is available from: http://www.fao.org/forestry/fra/48035/en/ (+.../fr; .../es) Completed in 2011.</p> <p>Remote sensing Workshops - summaries and training material for remote sensing interpretation on-line at RSS Meetings page: http://www.fao.org/forestry/fra/55919/en/ (+.../fr; .../es)</p> <p>JRC Manual (E,S,F) http://bookshop.europa.eu/en/user-manual-for-the-jrc-land-cover-use-change-validation-tool-pbLBNA24683/</p>
<p>C4. 20 sub-regional remote sensing training workshops</p>	<p>20 sub-regional remote sensing training workshops conducted involving more than 120 participants</p>	<p>Nineteen workshops held in total as part of the project with 206 people trained.</p> <p>A Pilot workshop was held for 25 participants from 22 countries in Rome in April 2009 notes are available on-line at RSS Meetings page: http://www.fao.org/forestry/fra/55919/en/ (+.../fr; .../es)</p> <p>Two Pilot workshops were held jointly with JRC with 14 participants from 7 European countries.</p> <p>Two workshops on Land cover validation were held jointly with JRC and partners for 16 participants from 9 countries in Kinshasa, DR Congo, Oct 2009, and 16 participants from 7 countries in Brazzaville, Congo, Feb 2010.</p>	<p>Workshop summaries available on-line at RSS Meetings page: http://www.fao.org/forestry/fra/55919/en/ (+.../fr; .../es) Completed in 2011.</p>


C5. Establishment of contracts with national and regional institutions for the interpretation of images	Contracts established with national and regional institutions for the interpretation of images	National validation contracts established with regional organisations and several countries in Africa where workshops have been held so far.	A big expansion of National validation contracts was required for Russian Federation and following the 17 regional workshops planned during 2010-11. Completed 2011.
C6. Compilation and analysis of data from the remote sensing survey	Data from the remote sensing survey compiled and analysed	Project database built and imagery and data loaded.	Main analysis completed 2011
C7. Preparation and dissemination of reports, maps and other information products	A final report and maps produced and available	Land use results Summary prepared and released 30 Nov 2011 at UNFCCC. New map of the World's Forests 2010 released Dec 2011.	Final reports completed in 2013.
D. Module 4. Special studies			
D1. Conduction of five or more special studies, including on forest degradation and fragmentation, trees outside forests and forest and poverty.	Five or more special studies conducted	A number of activities and outputs have been undertaken, but these are now funded under a different project.	
		Forest Futures scenarios have been produced, combining the projected global needs for food, feed, renewable energy and timber to envision their impact on forest resources and identify where competition for land will be likely take place in the future.	Completed in 2013
E. Module 5. Support to networking activities			

E1. Newsletter and support to the establishment of regional networks of national correspondents	Vibrant global and regional networks of national correspondents	National Correspondents existing in 178 countries. Four issues of the FRA 2010 Newsletter were prepared in English, French and Spanish and distributed to the readers. The number of people who subscribed to the newsletter increased from 600 in 2011 to 926 in 2013.	FRA Newsletter available at: http://www.fao.org/forestry/5239_8/en/ FAO Newsletter is in part funded by FAO's regular programme
F. Project monitoring and evaluation			
F1. External Evaluation	Evaluation undertaken	Evaluation team arranged and began work in mid-2011. ROM mission conducted in October 2011.	
F2. Expert Consultation	Expert consultation held	Expert consultation held in September 2011.	

Annex 13 **Evaluation Consultant Agreement**

Evaluation Consultant Code of Conduct Agreement Form

The form is to be completed by all consultants and included as an annex in the final report.

<p>Evaluation Consultant Agreement Form</p> <p>Agreement to abide by the Code of Conduct for Evaluation in the UN System</p> <p>Name of Consultant: Mohamed Saket</p> <p>I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.</p> <p>Signed at (Tunis) on (12 May 2014)</p> <p>Signature: </p>
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