Ex- Post Evaluation Report

ITTO Project PD 353/05 Rev.2 (M,F,I)

Adoption and Implementation of the Forestry Information System (FIS) for the Philippines

Prepared for ITTO

by

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EX-POST EVALUATION REPORT
ITTO PROJECT PD 353/05 Rev.2 (M,F,I)

ADOPTION AND IMPLEMENTATION

OF THE

FORESTRY INFORMATION SYSTEM (FIS) FOR THE PHILIPPINES

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Executive Summary

1) Introduction

The objective of PD 353/05 Rev.2 (M,F,I) *"Adoption and Implementation of the Forestry Information System (FIS) for the Philippines"* , with a total budget of $716,399, is to develop and implement a country-wide information system for forest policy and management. The Ex-post Evaluation shall give insight in the impact and sustainability of the FIS as well as the needs for improvement, almost two years after completion of the nation wide installation of the FIS.

Main problems to be addressed

After the successful completion of PD 41/99 Rev.4 (M) the main problems to resolve were:

- Some technical and methodological imperfections in the newly developed FIS,
- installation of FIS in the Forest Management Services Units not accomplished in 14 of the 16 regions,
- lack of skills in data management and effectively using the technologies,
- lack of awareness of the strength and practicality of a uniform and automated information system. (Data collection and generation must not be considered as a separate additional activity).

PD 353/05 Rev.2 (M,F,I)

Development objective

To promote and enhance the sustainable management of forest in the Philippines through improved data collection and information processes.

Specific objective

To develop and implement a country-wide information system for forest policy and management.

The Project budget was $ 477,889, ITTO, and $ 238,510, Govt. of Philippines. The project started July 2007 for an anticipated duration of 2 years. The Forest Management Bureau (FMB), a staff unit of the Department of Environment and Natural Resources (DENR), was the Executing Agency of the project The FMB provides technical support and assist in the monitoring of all forestry-related projects, programs and activities that the DENR is presently pursuing.

Scope and approach of the evaluation

The Ex-post evaluation of PD 353/05 Rev.2 (M,F) is particularly interesting, in the light of the observations and the lessons learned from the proceeding pre-project PPD 9/97 Rev.1 (M) and pilot project PD 41/99 Rev.4 (M). The ex-post evaluation has been carried out in August 2011, by Mr Erik Lammerts van Bueren, Netherlands. He studied relevant project documents prior to his visit 13-20 August to the Philippines. He consulted and discussed matters with the Director of FMB, the Project Team Leader and members of the project team. He visited the Regional, provincial and community office of DENR in Region 11 Davao in Mindanao.

2) Findings

Full support and commitment of the management levels of DENR and FMB were indispensable for creating a motivating environment for the implementation of the Project. A full committed, dedicated and adequate project team with clear assignments as well as the establishment of a Technical Working Group guaranteed a smooth and professional implementation of the Project. Implementation of the project was thoroughly prepared.

Achievements of the project

Overall, PD 353/05 Rev 2 (M, F, I) has been implemented with a high rate of efficiency and has resulted in a sound infrastructure of the Forestry Information System and a Geographic Information System (GIS).

At the time of the ex-post evaluation, almost two years after the completion of the project, FIS was fully operational as to the administrative information of the registered title holders and relevant spatial information (area, coordinates, topography). The strength of FIS lies in the combination with GIS. The FIS/GIS provides a clear insight in the way the country is covered with land title agreements. Overlaps and areas without land titles could easily be identified.

FIS/GIS has already shown to be instrumental for the preparation of site identification for an effective implementation of the Upland Development Program and the identification of suitable sites for the implementation of the National Greening Program.

FIS is capable of producing much more information but that capacity can only step by step become fully utilized. Collecting and entering all these data is a cumbersome and meticulous work and may require prioritizing, a project approach and a concerted effort.

FIS is part of a growing overall information infrastructure for DENR. Therefore all information systems must attune with each other and seek convergence.

The quality of the data has been stepped up a great deal. The unique entry point of data at the Community Environment and Natural Resources Offices (CENRO) guarantees integrity of the data at the higher levels in the DENR/FMB organization.

Continuing training is a point of concern. Frequent movement of trained focal persons may affect sustainability of the FIS adversely.

A permanent line item appears in DENR's regular budget specifically for information management activities. This can be tapped, among others, for the continuing procurement and maintenance of IT resources at FMB and the field offices.

Project Formulation
The gamut of activities, outputs and specific objective was sound and consistent.

During the ITTO pre-project consultations were held in order to arrive at a proper design of FIS. As the FIS is intended as a policy instrument and a monitoring tool for DENR programs implementers ,i.e. the field offices, most of the consultations were done with the DENR implementers from the field and those FMB officials handling the monitoring of tenure instruments.

Some NGO's in the regions were interviewed. Since then no formal consultation was organized, albeit some NGO delivered incidentally advice. The indicators for the Development objective did not provide a clear reference for the evaluation of the intended impact.

Financial matters
The decrease of the value of the US dollar with 16% against the pesos has affected the budget negatively.
According to the final Audit report, the ITTO funds have been fully spent with only minor deviations from the budget components in the Project document. The expenditures of the Government are reportedly exactly the same as the proposed budget.

3) Lessons learned
See main text section 4.2 for the full list of 12 lessons learned.

4) Conclusions
See main text section 5.1 for the full list of 10 conclusions.

5) Recommendations
See main text section 5.2 for the full list of recommendations. Recommendations are formulated for the EA and for ITTO separately.

All information systems must attune with each other and seek convergence to contribute to the growing overall information infrastructure of DENR.

Recommendations to the EA are formulated with a view on sustaining the **present level of performance** as well as to further **increase the value of FIS/GIS**

Main Text

1. Introduction

Ex-post Evaluation is the systematic and objective collection of information, on the spot assessment and analysis of the validity, design, appropriateness, performance and the impact of the Project after its completion, with the intent to establish the extent to which it achieved its objective, its degree of effectiveness and efficiency, as well as its sustainability. The purpose of ex-post evaluations is to learn lessons and to draw conclusions for future Projects.

At its Forty-fourth Session held in Yokohama, Japan from 13 to 18 December 2010, the ITTO Committee on Economic Information and Market Intelligence *inter alia* recommended to the International Tropical Timber Council the ex-post evaluation of the completed project: PD 353/05 Rev.2 (M,F,I) “Adoption and Implementation of the Forestry Information System (FIS) for the Philippines” with a total budget of $716,399. The recommendation was duly endorsed by the Council.

The objective of PD 353/05 Rev.2 (M,F,I) is to develop and implement a country-wide information system for forest policy and management. PD 353/05 Rev.2 (M,F,I) builds upon the results of pre-project PPD 9/97 Rev.1 (M) executed in 1998 and PD 41/99 Rev.4 (M) "Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS)-Phase I" which ran from June 2002 to December 2004. PD 353/05 Rev.2 (M,F,I) started in July 2007 and was completed December 2009. Also relevant for the project is the completion of PD 133/02 Re.3 (M) "Timber and Timber Products Trade Flow Study in the Philippines". ITTO has supported and funded all four (pre)projects.

The Projects have been implemented by the Forest Management Bureau (FMB) of the Department of Environment and Natural Resources (DENR) in the Philippines.

2. Evaluation, scope, focus and procedure

Scope and focus

PD 41/99 Rev.4 (M) and PD 133/02 Re.3 (M) have been evaluated in April/May 2010. The Evaluation report stated: *FMB & DENR now have a much more comprehensive computerised information system which can be readily interrogated.* Further concluding: *The development and implementation of a nation-wide Information System for the Forestry Sector - ..... - is a very substantial achievement over the past decade.* And also: *The FIS/GIS system is by no means perfect and **is** continuing to evolve as more uses of the system become apparent.*

Finally the report recommended: *If the ITTO and Council agree that these projects have generated substantial net benefits, then consideration should be given to whether there are similar opportunities for further investments in this area of the forestry sector of the Philippines.*

The Ex-post evaluation of PD 353/05 Rev.2 (M,F,I) is particularly interesting, in the light of these observations and the lessons learned from the proceeding project. Most important lessons were:

- *A continuing training program shall be developed to sustain the implementation of the FIS;*
- *All existing files must first be validated on the ground to come up with more accurate data to be stored in the system.*

The Ex-post Evaluation shall give insight in the impact and sustainability of the FIS as well as the needs for improvement, almost two years after completion of the nation wide installation of the FIS.

The Terms of Reference for the Ex-post evaluation focused the assessment, among others, on:

- the extent to which the development objective, the specific objective and the outputs of the project have been achieved.
- the impact and relevance of the project and determine the extent to which the project has contributed towards generating and sustaining complete and accurate information on the Philippine’s forest sector under the FIS as well as the enhancement of forest policy and management in the country
- the effectiveness of information dissemination of project outputs and assess the overall post project situation in relation to its impact on the Philippines forest sector, forest policy and management, as well as the uptake of the FIS by the relevant stakeholders and targeted beneficiary groups.

The full Terms of Reference are presented in Annex I.

Procedure and approach

In July 2009, ITTO has invited Mr. Erik Lammerts van Bueren (MSc), Netherlands to undertake the Ex-post evaluation. He directs a small bureau, ISAFOR, which advises policy makers and institutions on forest policy and management issues. Mr. Erik Lammerts van Bueren is well acquainted with ITTO and its project work and has worked on the revision of the ITTO Project Cycle Manuals and Guidelines.

After agreement between ITTO and the consultant, ITTO has informed the Executing Agency on the forth coming evaluation mission. In close cooperation between ITTO and the consultant the Executing Agency had worked out an efficient itinerary to execute the evaluation mission. The Assistant Director for Economic Information and Market Intelligence (EIMI), Mr. Amha bin Buang, has sent relevant project documents for examination by the consultant prior to his visit, 13-19 August 2011, to the Philippines.

The approach to the evaluation was to

- Carefully review all Project documentation (Project Documents, Completion Reports, regular Progress Reports and reviews, auditors report and any related publications), prior to arrival in Manila;

- consult and discuss with members of the Project team in FMB Head office, and with staff members from DENR Forest Management Services at various levels i.e. region, province and community;

- interview stakeholders outside DENR.

The Project team had prepared an attractive and challenging itinerary for the evaluation mission. At the FMB office in Manila, the Project Leader .Forester Mayumi Quintos-Natividad and her team demonstrated the various services of the FIS/GIS. Visits were paid on Mindanao to the DENR Regional office 11, Davao City; Provincial Environment and Natural Resources Office (PENRO), Davao Norte; and the Community Environment and Natural Resources Office (CENRO), Tagum City. At the Regional office the consultant observed a workshop for representatives of communities with a Community Based Forest Management agreement. He had a discussion with For.. Marlea Munez, President of Women's Initiatives for Society, Culture and Environment (WISE) and representing a consortium of grassroots NGO's. Finally during the debriefing conference at the FMB office, the consultant discussed various matters with the Director of FMB Forester Neria Andin, the Project Director and Project team members.

The Consultant gratefully acknowledges Forester Neria Andin, Director, Forest Management Bureau, For. Mayumi Quintos-Natividad, Project Team Leader, Mr. Eugene Estrada and Ms. Aura Venia Rayala who kindly provided guidance during the visits in the Region; Mr.. Jim O Sampulna Regional Executive Director, who chaired the debriefing conference of Region 11, For. Hardinado V. Patnugot, Regional Technical Director for forestry, For. Alfredo B. Zarasate, Chief Forest Resources Development Division; For. Marcia G. Isip PENR Officer of Davao del Norte, Mr Cyrian A. Durban, PENRO FIS focal person; Mr. Antonio R.Inguillo, CENR Officer of Tagum City and Mrs. Nelia Rufon, CENRO FIS Focal person; and all other members of the FMB and DENR Forest Management Service offices for organizing the mission, appointments and the field trip, and for providing relevant information and constructive suggestions.

A draft evaluation report was sent by e-mail on August 22, 2011 to the EA for comments. After taking account of the comments of the EA the consultant submitted the report to the Assistant Director for Economic Information and Market Intelligence of ITTO for his comments. The final report was submitted at the end of August 2011.

3 Project facts

3.1 Origin

In the late nineties of the last century a series of assessments by the DENR revealed that there was a need for having a real time, consistent and reliable statistical database for policy formulation, decision making and monitoring. At that time the main concern was to get better insight in the entire portfolio of land title agreements and the degree of compliance with these agreements.

The kick off for the FIS was PPD 9/97 Rev.1 (M) which was followed in June 2002 by PD 41/99 Rev.4 (M) on the "Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS)". This project PD 353/05 Rev.2 (M,F,I) results directly from PD 41/99 Rev.4 (M). The latter Project has established the information system modules, covering a wide range of forest management topics. More specifically, it has developed technologies and protocols for data collection, data storage, data transfer,

information infrastructure and specific applications. It also implemented the information system in the FMB Head Quarters and two Pilot Regional offices on Luzon Island.

PD 353/05 Rev.2 (M,F,I) secures that the rest of the DENR Forest Management Services in the regional, provincial and community offices adopt and implement the Forestry Information System (FIS).

3.2 Project Intervention

Main problems

The Forest Management Bureau in the Philippines has the mandate to protect, manage and appropriately develop the country's forest resources and watersheds. It also has an advisory role in the formulation, monitoring and revision of policies and programs in the forestry sector. To fulfill its mandate FMB suffered from a lack of systematic access to up-to-date, accurate and relevant information on Philippine forest resources, their management and other information needed for more effective policy and planning. The first concern was to get better insight in the entire portfolio of land tenure instruments and the degree of compliance with these agreements by the tenure holders.

After the successful completion of PD 41/99 Rev.4 (M) the main problems to resolve were:

- Some technical and methodological imperfections in the newly developed FIS,
- installation of FIS in the Forest Management Services Units not accomplished in 14 of the 16 regions,
- lack of skills in data management and effectively using the technologies,
- lack of awareness of the strength and practicality of a uniform and automated information system. (Data collection and generation must not be considered as a separate additional activity).

Development objective

To promote and enhance the sustainable management of forest in the Philippines through improved data collection and information processes.

According to the PD all **stakeholders,** including rural communities and prospective investors, will have improved access to information on the current inventory and status of forest resources to identify gaps in policies and practice, including identifying areas and opportunities for further investments.
A total picture of the state of the forest would be easily made accessible to policy makers be it in national, regional, and provincial as well as municipal levels.

Specific objective

To develop and implement a country-wide information system for forest policy and management.

FIS will provide services/**applications** for: Forest Land Use Plan; Community-Based Forest Management Agreement; Integrated Forest Management Agreement; Forest Land Grazing Management Agreement; Special Forest Land Use; Timber License Agreement; Management of Protected Areas; Private Land Forest Management; Forest Stock Monitoring System; Revised Price Monitoring System; Forestry Statistical Reporting System.(the latter two applications are not includes in PD 353/05 Rev. 2 (M.F,I)

The Regional and the National Offices shall maintain a **website** to post the relevant forestry information that are necessary for **public use**.

Criteria for **success** of the FIS are: speed, availability, integrity and user friendliness. (PPD 9/97 Rev.1)

Outputs

The four anticipated outputs, as formulated in the Project Document were:
1) The FIS adopted and institutionalized at the National and in the FMS Units in the Field Offices
2) The capability building program on IT and system applications conducted
3) IT infrastructures to activate and sustain FIS set in place at the National and the FMS Units in the Field Offices
4) FIS operationalized at the National and all the FMS Units in the Field Offices

Starting and completion date

Proposed Start	July 2007	Actual Start	July 2007
Proposed completion	June 2009	Actual Completion	Dec 2009

Budget

Total budget according to PD $716,399

Proposed ITTO Contribution	$422,435[1]	Actual ITTO Contribution	$422,089
Proposed GP Contribution	$238,510[2]	Actual GP Contribution	$255,764

Executing Agency
The Forest Management Bureau (FMB), a staff unit of the Department of Environment and Natural Resources (DENR), was the executing agency of the project The FMB provides technical support and assist in the monitoring of all forestry-related projects, programs and activities that the DENR is presently pursuing. The FMB has a total of 349 personnel. Of the total manpower in the FMB, there are two hundred forty (240) administrative and one hundred nine (109) forestry technical personnel. Twenty six (26) have post-graduate degrees (1 Ph.D. and 25 Master's degrees) while ninety six (96) have college degrees.

4. Evaluation

4.1. Findings

4.1.1. Achievements of the Project

Overall achievement
Overall, PD 353/05 Rev 2 (M, F, I) has been implemented with a high rate of efficiency and has resulted in a sound infrastructure of the Forestry Information System and a Geographic Information System (GIS). This is being valued within DENR and with stakeholders outside DENR. The FIS/GIS is potentially capable of producing a wealth of valuable information, the significance of which may well reach out to other sectors within DENR. The most compelling need was to organize and structure the numerous land tenure arrangements in the forestry sector of DENR. FIS had to cover seven types of land title agreements, resulting in seven applications. Great efforts were made to enter all the registered arrangements. At the time of the ex-post evaluation, almost two years after the completion of the project, FIS was fully operational as to the administrative information of the registered title holders and relevant spatial information (area, coordinates, topography). The combination of FIS and GIS provides a clear insight in the way the country is covered with land title agreements. Overlaps and areas without land titles could easily be identified. However the value of the system could be increased by establishing a link between GIS and the FIS data base so that a click on a specific land title area, shown on the map, would directly retrieve all the information of that particular area and title holder which is stored in FIS.

As mentioned above FIS is capable of producing much more information but that capacity can only step by step become fully utilized. For instance, specific information on forest cover, species composition, harvest etc. is not yet available, at least not complete at an aggregated level. It is a matter of collecting data in the field and/or retrieving data from documents, notably development plans, which each land title holder has to produce. Another source of information is the permit which every land owner or manager has to obtain to undertake any action on his/her land. Collecting and entering all these data is a cumbersome and meticulous work and may require prioritizing, a project approach and a concerted effort.

The FMB seeks opportunities to further increase the value of FIS/GIS by producing time series enabling trends in land cover and land use. The present base map used dates from 2004.

FIS is not a stand alone system within DENR. It is part of a growing overall information infrastructure for the environment and natural resources. Therefore all information systems must attune with each other and seek convergence. Information provided by FIS/GIS is particularly relevant for the National Statistical Coordination Board (NSCB) and the Department of Agriculture (DA) and the Department of Agrarian Reform(DAR) the Land Management Bureau(LMB), the Protected Areas and Wildlife Bureau (PAWB), the National Commission on Indigenous Peoples (NCIP). FMB has no jurisdiction on the forest in protected areas and on land with an ancestral domain/land claim or title. Cooperation between the relevant agencies and FMB is essential for including the forest cover within the area of their jurisdiction in the FIS data base.

Impact
Impact should be measured in terms of enhanced forest management; more targeted forest policy development and implementation, improved procedures for land tenure agreements and greater satisfaction with stakeholders. Besides the identification of overlaps in tenure titles and areas without a land title, FIS/GIS has already shown to be instrumental for the preparation of site identification for an effective implementation of the Upland Development Program, identification of suitable sites for the implementation of the National Greening Programs as well as for site specific projects.

[1] excluding $ 55.399 ITTO costs for monitoring, evaluation and programme support costs
[2] according to the PD; according to the Financial statement the proposed Government Contribution is $ 255,764.

Quality of data and maps

The quality of the data has been stepped up a great deal. The validation of new data before entering in the system has improved considerably. However the Project budget did not allow for a systematic (re)validation of earlier data. As has been recognized by the evaluation of the pilot phase, the unique entry point of data at the CENRO guarantees integrity of the data at the higher levels in the DENR/FMB organization. There is higher data-security than ever before, with backups of data in the Provincial Regional Offices, so that files will no longer "go missing" or be subject to loss by equipment failure, office fire, etc.

The GIS maps, which integrate spatial data from the FIS onto the topographic base map, are being produced at the Regional offices and are integrated at the FMB to come up with a national map. Presently only a few plotters and printers for the production of GIS maps are available. Also a limited number of trained people has the skills and can build up the routine to produce GIS maps. It is being argued that GIS should be produced at the CENRO level where the accuracy of the maps immediately could be checked and errors could be corrected. To what extent this is a practical solution needs to be determined bearing in mind the considerable investments and the required skills and routine to operate GIS.

User friendliness.

The present FIS and GIS meet to a great extent the *Criteria for success* i.e. *speed, availability, integrity* (reliability of the data and information) and *user friendliness*. Once people are trained in how to use the system, which includes a search engine on project name, information can quickly be retrieved. Nevertheless training is a point of concern. FMB has produced a Manual for dealing with Forestry data entry forms.

Working easily with FIS requires a certain routine. Only the trained people were assigned with specific tasks concerning data entering or retrieving information. Even these people may lose routine after a while, moreover they may be moved to other positions. The project team at the FMB is still in place and they are fulfilling the task of helpdesk and provide backup for the focal persons at the regional office, while the focal persons at the regional office function as trouble shooter for the focal persons at the provincial and community offices. Besides a social network of the FIS group is operational at Face book.

Availability and accessibility

The information in the FIS is real time available at every level of the forest sector within DENR. Most people, in the Regional, Provincial and Community Offices (RENRO, PENRO & CENRO) use the FIS/GIS, either providing data and information into the system or using information from the system, as part of their normal activities. Data are being transmitted on a disk from the CENRO to the PENRO and the Regional office. This does not seem a desirable situation. Improved internet access at the CENRO level for fast transmission of FIS updates could solve this problem.

Stakeholders outside DENR such as NGO's and prospective investors, are being better served by the forest sector units in their search for information than prior to FIS. But a procedure for a proactive signaling of new information would be welcomed. Information is also available on the FMB website and the Regional DENR offices. However, a systematic user analysis has not yet been undertaken.

Realized versus planned Objectives and Outputs

In spite of some budget constraints, caused by a stronger exchange rate of the pesos against the US dollar, the Project team succeeded very well in accomplishing the four outputs and the specific objective.

It should be noted that the project produced not only a nationwide up and running FIS but, to make it work, also a well trained IT work force of foresters and administrators.

Sustainability

According to the chapter *Future Operations and Maintenance* in the Project document FIS will be sustained by institutionalizing capacity-building in forestry data management and ensuring continuity in the IT infrastructure and resources.

Regional offices are provided with funds to conduct training. They also conduct consultative meetings with the focal points of PENRO's and CENRO's to exchange concerns and to identify issues to act upon.

The integrated DENR Information System Strategic Plan emphasizes the need to provide IT resources especially to the field offices which provide direct services and have direct access to the public it serves. The Plan is followed by a permanent line item in DENR's regular budget specifically for information management activities. This can be tapped, among others, for the continuing procurement and maintenance of IT resources at FMB and the field offices.

Organic staff is designated with accountability to perform data management tasks, manage the IT facilities and databases in their respective jurisdictions. They are dedicated, quote “FIS gives essence to my work”. Frequent movement of these people may affect sustainability of the FIS adversely.

4.1.2 Process of Project formulation and implementation, efficiency

Project formulation

Stakeholder involvement during the identification and during the implementation of the Project.

The input of stakeholders outside DENR is of great importance for the identification of the needs of information and the accessibility of information and thus for the design of the system. The basis for the content and accessibility of FIS was laid in the previous projects. During the ITTO pre-project in the regions tenure holders and some NGO’s were interviewed. Since then no formal consultation was organized albeit some NGO delivered incidentally advice.

Project design (logical frame work)

The project proposal had been developed on the basis of the Project Formulation Manual 1999. The lack of enhanced guidance as provided by the new Manual (2009) was somewhat mirrored in the problem tree and the Logical Framework.

The vertical logic

The vertical logic refers to the consistency between project elements, i.e. specific objective, outputs, and activities. It is crucial that activities are sufficient and necessary to produce the outputs and the outputs are sufficient and necessary to achieve the specific objective. The gamut of activities, outputs and specific objective was sound and consistent. During implementation no need was felt for any modification, other than some budgetary adjustments and minor technical changes in the system to accommodate the needs of the field offices.

The horizontal logic, (logical framework)

The horizontal logic refers to the, indicators, means of verification, and assumptions, which are attributed to each project element. Indicators measure the degree of accomplishment of a project element. The description of the intended situation after project completion should reflect these indicators. The formulation of verifiable indicators of some project elements was fairly weak. The indicators for the Development objective did not provide a clear reference for the evaluation of the intended impact. More accurate formulation of the indicators for the development objective might have contributed to a stronger focus on the involvement of stakeholders outside DENR/FMB.

Assumptions

Assumption is the necessary external condition which must exist to achieve the corresponding project element. Although the Project team can exercise little or no control on them, correct assumptions are helpful attributes for monitoring and for taking actions for mitigation or adaption. In most cases the formulated assumptions were highly relevant except the ones formulated for the development objective. However, the lack of more appropriate assumptions apparently did not have any adverse effect on the contribution to the development objective, as is demonstrated by the impact of the project.

Risk

Identified risks were: lack of accountability and a clear sense of data ownership. Also, reluctance to share information was an anticipated risk. To address these issues an oversight body would be created. The project team itself has exercised this oversight. There is a remarkable good working relation between all levels from the team at the FMB to the focal persons in the field offices (RENRO,PENRO and CENRO), which is not only crucial for the successful accomplishment of the project but also for the continuing performance of the FIS. Yet, it had been observed that, at least during project implementation, not all people, who had to contribute data to the system but without specific project tasks, fully appreciated the value of the tool.

Project implementation, efficiency

Project planning and duration

The Project had a slow start July 2007. Due to the strengthening of the Philippine pesos against the US dollar the project had to undergo some reviews. By the end of 2007 the activities were all started. Because the slow start and considerable time needed to shift from manual procedures to computerized processes as well as necessary changes of the design of FIS in the course of the project implementation the Project was not fully completed at the end of the planned two year period. With the approval of ITTO, the

project period was extended with six month but without any additional budget and was successfully completed December 2009.

Project organization
Project management was sound and based on consciousness of management principles such as stakeholder satisfaction (at least with in DENR), prevention over inspection and division of responsibilities. Full support and commitment of the management levels of DENR and FMB were indispensable for creating a motivating environment for the implementation of the Project. A full committed, dedicated and adequate project team with clear assignments as well as the establishment of a Technical Working Group guaranteed a smooth and professional implementation of the Project. Implementation of the project was thoroughly prepared. But inevitable there were instances that interpretation of policies from one region to another called for reconsidering the design of some system elements. Also during project implementation, pressure was on the project team to add features and enhancements not planned in the original design such as adding more timber species and livelihood activities. The project team managed these changes extremely well.

Reporting, monitoring and evaluation
Project Steering Committee (PSC), chaired by the Director of FMB, met twice: June 25, 2008; May 20 2009. Recommendations of the PSC have been followed up as far as resources could be allocated. No Mid-Term evaluation has been carried out but an ex-post evaluation of PD341/99 Rev.4 (M) was launched in April/May 2010.

Four **progress reports** and the completion report were timely produced, except for the first report which was submitted on April 30, 2008. They are adequately presenting budget expenditures, progress of realized outputs and executed activities, but no specification of costs per activity. The **completion report** provides clear insight in project performance featuring for each activity the planned and realized costs and duration. Further more it provides an analysis resulting in valuable lessons learned and conclusions.

Financial matters
The decrease of the value of the US dollar with 16% against the pesos has affected the budget negatively.

The Project document presents consolidated costs and breakdown of costs over the activities. The unit costs seem fair. Two Yearly Plan of Operations (YPO) were submitted, respectively for the period July 2007 – June 2008, and July- December 2009. The first YPO contains a consolidated budget for each period, and a breakdown of costs over the anticipated activities for that period.

Two financial audit reports have been submitted to ITTO, one after the first year of implementation and one upon completion of the project. According to the final Audit report, the ITTO funds have been fully spent with only minor deviations from the budget components in the Project document. The expenditures of the Government are reportedly exactly the same as the proposed budget. The final Audit report does not provide insight in the actual division of resources over activities. However the completion report provides for each activity the planned and realized costs. The aggregation of these realized costs does not seem to fully match with the audited financial statement.

Project proposal appraisal process
The project has been assessed twice by the ITTO expert panel. Most of the observations of the panel were on the logical framework and the problem analysis. And indeed, the Panel, while commending the proposal to the committee for final appraisal, recommended to adjust the Problem tree and the objectives. It recommended also to include quantitative information for indicators in the LFM and to ensure that assumptions reflect aspects of concern. The latter recommendations were, in the opinion of the evaluator, not fully satisfactorily followed.

4.2 Lessons learned

The following lessons can be learned from this project:

Project management
1) Commitment at the top of the organization and full commitment and dedication of a professional project team are key to a successful development and implementation of a Forestry Information System.

2) The project has demonstrated that critical success factors for its implementation were: Selection of the right people; securing availability of these people during the full time of the project; clear division of tasks and responsibilities and focus on quality control and change control.

Project development

3) It had been observed that, at least during project implementation, not all people, who had to contribute data to the system but without specific project tasks, fully appreciated the value of the tool.

4) Systematic user analysis and analysis of user needs is a prerequisite to identify Outputs which satisfy end users and to create a sense of ownership over the project, which in turn stimulates the use of the project products and services.

Project design

5) A justified Project strategy, based on a thorough problem analysis, and a solid Project design, comprising a sound vertical and horizontal logic, are crucial for effective project implementation, monitoring and validation.

6) More accurate formulation of the indicators for the development objective might have contributed to a stronger focus on the involvement of stakeholders outside DENR/FMB.

7) The formulation of the anticipated outcome should be modest and realistic and raise no false expectations. An example is the following phrase in the Project proposal (2.7). *A total picture of the state of the forest would be easily made accessible to policy makers be it in national, regional, and provincial as well as municipal levels.* The system is not yet able to produce a total picture of the state of the forest and it will take a lot of efforts and resources to reach that stage of information.

8) The required amendments in the project proposal, prior to submission to the Committee for final appraisal, contribute to the further improvement of the proposal. However they are not always followed in a satisfactory way.

Project Implementation and sustainability

9) All existing files must first be validated on the ground to come up with more accurate data to be stored in the system.

10) Training of focal points at the various levels is a major point of concern and requires continues attention. Frequent movement of these people may affect sustainability of the FIS adversely.

Financial matters

11) Fluctuations of exchange rates have had a negative effect on the budget.

12) Financial information is fragmented over the financial statement and the completion report. This impedes a clear picture of the actual expenses versus the planned expenses at the level of activities. The expenditures of the Government are reportedly exactly the same as the proposed budget.

5. Conclusions and recommendations

5.1 Conclusions

1) Managers and policy makers, from top to bottom in the organization, recognize ICT as an effective and efficient tool for monitoring, policy formulation and decision-making.

2) FIS/GIS has stepped up the quality of delivered services necessary to enhance forest management.

3) The strength of FIS lies in its combination with GIS. At the present stage GIS seems to be the attribute that contributes most progress in providing information enabling analysis.

4) FIS is part of a growing overall information infrastructure of DENR. All information systems must attune with each other and seek convergence.

5) The significance of FIS/GIS reaches out already to other sectors within DENR.

6) Cooperation between FMB and other Agencies such as the Protected Areas and Wildlife Bureau and the National Commission for Indigenous Peoples is essential for including the entire forest cover in the FIS data base.

7) Various features (attributes) of FIS are not yet operational. The value of the system could be further increased by collecting and entering data to operationalize these features, by building up time series, and by establishing a link between GIS and the FIS data base to retrieve all non-spatial information. It is expected that increased value will be reflected in continuing and sufficient availability of human and financial resources to keep the system up to date.

8) Collecting and entering all data, which the FIS is capable to process, is a cumbersome and meticulous work and may require prioritizing, a project approach and a concerted effort.

9) Well trained and skilled personnel at all levels is crucial for an efficient and effective FIS. In that respect is frequent movement of field personnel is a thread for the sustainability of the system.

10) Introduction of IT systems like FIS/GIS in other ITTO member countries is most likely to reveal overlapping boundaries of tenure areas and other inconsistencies with the implementation of policies and license programmes, which otherwise would have left undetected.

5.2 Recommendations (based on the lessons learned and the conclusions)

Recommendations for the EA

All information systems must attune with each other and seek convergence to contribute to the growing overall information infrastructure of DENR.

It is recommended, in order to sustain the **present level of performance,** to:

- Implement an effective protocol for training people who replace key persons in FIS management;
- implement an effective protocol for refreshment training for key persons in FIS management;
- keep a helpdesk function operational at the national and regional level;
- sustain narrow cooperation with other Agencies such as the Agency for Protected Areas and for Indigenous People to complete data entry of the entire forest cover in the FIS data base;
- establish a link between GIS and the FIS data base to retrieve all non-spatial information;
- to establish a procedure for a proactive signaling of new information to users within and outside DENR;
- complete ground validation of insecure data which have been entered in the present database; keep hard ware and soft ware up to date and secure timely replacement.
- Improve internet access at the CENRO level for fast transmission of FIS updates.
- make the necessary human and financial resources available to secure the implementation of the above measures.

It is recommended to further **increase the value of FIS/GIS** by:

- Applying a project approach and a concerted effort for prioritizing the features, which the FIS is capable to process, and collecting and entering the relevant data;
- producing time series enabling to identify (trends of) changes in land cover and land use.

Systematic user analysis
A systematic user analysis may be helpful to prioritize the collection and entering of data for the various features of the database and to further enhance access and user friendliness of the system.

Project formulation and design
It is recommended, for future project proposals, to take full advantage of the guidance of the present ITTO Manual for Project Formulation (2009), notably for designing a sound problem tree and formulating relevant assumptions and, if possible quantitative, indicators in the Logical Frame Work.

GIS
It is recommended to critically consider the desirability and practicality of producing GIS at the CENRO level, bearing in mind the considerable investments and the required skills and routine to operate GIS.

Recommendations for ITTO

Project appraisal
It is worthwhile to carefully check that the required amendments in the project proposal, prior to submission to the Committee for final appraisal, have been followed in a satisfactory way.

Financial statements
Consider the inclusion of expenditures per activity in the format for the (final) Financial statement. Clarification should be sought for inconsistencies between various financial reports and statements and for expenditures where they are reported to be exactly the same as the proposed budget.

Follow up
Consider further support, when requested, to enhance the value of the FIS by a one time effort to collect and enter data necessary to operationalize the essential features.

Erik Lammerts van Bueren August 26, 2011

ANNEX I: Terms of Reference

Terms of Reference for the Ex-Post Evaluation of ITTO Project PD 353/05 Rev.2 (M,F,I) Adoption and Implementation of the Forestry Information System (FIS) for the Philippines

Background

At its Forty-fourth Session held in Yokohama, Japan from 13 to 18 December 2010, the ITTO Committee on Economic Information and Market Intelligence *inter alia* recommended to the International Tropical Timber Council the ex-post evaluation of the completed project: PD 353/05 Rev.2 (M,F,I) "Adoption and Implementation of the Forestry Information System (FIS) for the Philippines". The recommendation was duly endorsed by the Council.

The background information on this project is contained in relevant documents as attached. The development objective of the project was to promote and enhance the sustainable management of forests in the Philippines. Specifically, the objective of the project was to develop and implement a country-wide information system for forest policy and management in the Philippines. Among the key outputs produced by the project were (i) FIS adopted and institutionalised at the National and FMS units in the Field Offices, (ii) Information technology infrastructure to activate and sustain FIS set in place at the National and FMS Units in the Field Offices, (iii) Capacity building programme on IT and system applications conducted, and (iv) FIS operationalised at the National and FMS units in the Field Offices.

Terms of Reference for Ex-Post Evaluation

i. Assess the extent to which the development objective, the specific objective and the outputs of the project have been achieved.

ii. Assess the relevance of the project to ITTA, 1994 and the ITTO Yokohama Action Plan.

iii. Evaluate the impact and relevance of the project and determine the extent to which the project has contributed towards generating and sustaining complete and accurate information on the Philippine's forest sector under the FIS as well as the enhancement of forest policy and management in the country.

iv. Determine the effectiveness of information dissemination of project outputs and assess the overall post project situation in relation to its impact on the Philippines forest sector, forest policy and management, as well as the uptake of the FIS by the relevant stakeholders and targeted beneficiary groups.

v. Define and assess any unexpected event, effect and impact, either harmful or beneficial, and offer explanation for their occurrence.

vi. Analyze and assess the efficiency of project implementation and management, including technical, financial and managerial aspects.

vii. Recommend follow-up action, where appropriate, in order to enhance utilization of the results of the project.

viii. Make an overall assessment of the project's relative success or failure, summarize the key lessons learned; and identify any issues or problems which should be taken into account in the design and implementation of similar projects in future.

ix. Prepare an evaluation report with an executive summary in accordance with the outline provided in the ITTO Manual for Project Monitoring, Review and Evaluation.

x. Prepare an article for possible publication in the ITTO Tropical Forest Update (TFU), in consultation with the editor, containing an overview of the project and summarizing the lessons learned from the evaluation work. Twenty or more high-resolution photographs of the project should be compiled in a CD along with data on each photograph according to the proforma to be provided by ITTO for this purpose. Guidelines for the preparation of articles for ITTO's TFU are enclosed.

In addition to addressing the above, the evaluation should be conducted in such a way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring Review and Evaluation, a copy of which is enclosed. It should also be conducted to take due account of the implementation of relevant and related ITTO funded pre-project PPD 9/97 Rev.1 (M) "Development and Implementation of the Forestry Statistics Information System" and project PD 41/99 Rev.4 (M) "Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS) – Phase I", including the ex-post evaluation conducted on the project.

Proposed Work Schedule

July 2011	Consultation by correspondence and e-mail with the ITTO Secretariat.
13 August 2011	Travel to Manila, Philippines to conduct the ex-post evaluation at the office of the Executing Agency, Forest Management Bureau (FMB), Department of Environment and Natural Resources (DENR), the Philippines.
15-19 August 2011	Meetings with officials of DENR and FMB particularly the Project Coordinator and other available members of the project team for elaboration and finalization of the programme for the assignment, briefing and discussions on project implementation and results and inspection of project sites, tangible outputs and financial accounts and statements. During the course of the assignment, the consultant may hold discussions with any relevant stakeholders involved in, or impacted by, the project.
29 August 2011	Submission of draft report to ITTO and the Executing Agency for comments and suggestions.
9 September 2011	Submission to ITTO, of the final report, including an executive summary, the draft article for the TFU and twenty or more high-resolution photographs of the project compiled in a CD along with data on each photograph according to the *proforma* to be provided by ITTO for this purpose.
15-17 November 2011	Presentation of the report at the Forty-fifth Session of the ITTO Committee on Economic Information and Market Intelligence to be held in Antigua, Guatemala from 14 to 19 November 2011.

The assignment will require traveling to FMB, DENR in Manila, the Philippines and to Antigua, Guatemala from 15 to 17 November 2011 in conjunction with the Forty-fifth Session of the Committee on Economic Information and Market Intelligence.

ANNEX II: Executing Agency's Views

Annex presents any views of the EA which deviate from the conclusions of the evaluation team.

General Comments on the Evaluation Process
The EA had no comments to make.

General Comments on the Report
The EA has made some corrections and proposals for slight adjustments in the text, which have been incorporated in the final draft.