ITTO Project PD 41/99 Rev.4 (M)

Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS) (Philippines)

ITTO Project PD 133/02 Rev.3 (M)

Timber and Timber Products Trade Flow Study in the Philippines (Philippines)

EX-POST EVALUATION REPORT

Prepared for ITTO

by

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EXECUTIVE SUMMARY

This report covers the ex-post evaluation of two closely related projects in the Philippines, supported by the ITTO and implemented by the Forest Management Bureau (FMB) of the Department of Environment and Natural Resources (DENR). They are:

PD 41/99 Rev 4 (M): ***"Development and implementation of the Pilot Project of the Forestry Statistics Information System – Phase I"***
(Implemented from July 2002 to December 2004, with ITTO's Contribution $261,042 and the Executing Agency's Contribution $190,750)

PD 133/02 Rev 3 (M): ***"Timber and Timber Products Trade Flow Study of the Philippines***"
(Implemented from September 2003 to September 2006, with ITTO's Contribution $126,937 and the Executing Agency's Contribution $69,790)

These two Projects were followed by a closely related Project, PD 353/05 Rev 2 (M,F,I) "Adoption and implementation of the Forestry Information System for the Philippines", which was the follow-up to the pilot project PD 41/99 Rev.4 (M). Although this Project is not directly the subject of this evaluation, it is very relevant to the evaluation of the two earlier projects.

This ex-post evaluation has focussed on the Projects' **effectiveness** (whether they achieved their objectives) **efficiency** (whether those objectives were high priority and implementation was cost-effective) and **impacts** (including longer-term sustainability and lessons relevant to similar Projects in future).

The approach to the evaluation was to carefully review all Project documentation, conduct detailed interviews with relevant Project personnel and some of the stakeholders involved in each of the Projects.

The evaluation results are very impressive, in terms of what has been achieved, the impacts arising from the Projects and their continuing legacy. As a general statement, each of the Projects has been executed in a very professional and efficient manner, generally within budget, and on schedule allowing for external shocks, unavoidable delays and contingencies. The reasons for this success are: **good project design; excellent training; outstanding "people-management" skills; and a continuous focus on quality and policy relevance.**

Main Findings and Lessons Learned

1. PD 41/99 Rev 4 (M): "Development and implementation of the Pilot Project of the Forestry Statistics Information System – Phase I"

Main Findings:

- This Project was extremely ambitious and arguably essential to FMB's mandate, yet the funding allocated to it was very modest. There was no precedent in the Philippines for such a comprehensive modern IT system to meet the needs of policy/program design. The Pilot Project revealed how transformational such powerful IT systems can be.
- The Pilot Program revealed how the emergent FIS/GIS could be used to enable much more comprehensive prioritisation for new initiatives by the Government DENR; more accurate and timely monitoring of ongoing Projects; better ex-post evaluation of the achievements of specific Projects; and new policy initiatives to be developed. For the first time, FMB would have the information base to fulfil its mandated role and tasks.
- The Pilot Program was implemented very cost-effectively. Management was very frugal and cost-conscious, and intent of achieving maximum value for money. Given the scope of the task, the EA acquired all the necessary inputs, conducted the scheduled Activities and met its expected outputs and outcomes in a surprisingly short time period.
- The merits of the Pilot Project were extremely important to the subsequent refinement and roll out of the FIS/GIS nationally. The FIS/GIS is now being "mainstreamed" and is a core part of everyday business of FMB and increasingly the rest of DENR. Almost all foresters come into contact with the FIS/GIS as part of their normal activities. This is quite an achievement, and changes the way the FMB and DENR offices operate and enhances the impacts they can achieve.

- FMB & DENR now have a much more comprehensive computerised information system which can be readily interrogated. National consistency is assured, and all the "end of Project" status benchmarks were achieved.

Lessons Learned:

- The Pilot Phase was ambitious and extremely challenging. Thorough preparation ensured that time and resources were not wasted collecting and storing data that would be unnecessary or irrelevant.
- Some difficulties were encountered, a few small mistakes were made and corrected, but overall the Project was completed on Budget and close to schedule.
- Perhaps its biggest achievement, apart from "proof of concept" was to develop a team of well trained and highly motivated officers who were willing and able to make the system work. This is a tribute to the EA management team.
- There are some continuing limitations: new training programs will be required for the staffs who replace those who received initial advanced training; Some of the computers initially supplied will soon be obsolete and deteriorated. The DENR is committed to maintaining the system through its own regular budget.

2. PD 133/02 Rev 3 (M): "Timber and Timber Products Trade Flow Study of the Philippines"

Main Findings:

- The implementation of the Project went relatively smoothly (apart from delays caused by widwspread flooding). Reports were prepared on schedule, training programs were completed successfully, funding tranches released on schedule, and audited acquittals of expenditure submitted on schedule.
- The study and database have provided very valuable, policy relevant information and insights which have informed subsequent government policies, e.g. the rationalisation of sawmilling capacity, and payments to Government as shares of plantation revenues or profits, in lieu of land rentals.
- There is no doubt that FMB would not be in such a position to perform its duties so well, if that Project had not occurred. And there will continue to be spin offs from it.
- The ITTO deserves commendation for having the foresight to support these Projects and the FMB/DENR for having the capacity and dedication to implement them effectively and very cost-effectively.
- The investments have already generated huge benefits in terms of public policy and assisting Philippines' forest industries to restructure and position themselves for more sustainable forest management in the future. These benefits are likely to both continue and spread more widely, provided the modest maintenance funding is sustained to keep the system up-to-date and relevant.

Lessons Learned:

- The principal lesson from the evaluation of this Project is that even a well-intentioned, well-designed, well-implemented Project can be totally overwhelmed by external factors that arise suddenly without warning. The implementation of the national ban on logging was one such "exogenous shock". Another was the sudden cancellation of all forest tenure agreements across 7 of the 16 Regions, or DENR restrictions on cutting or removing any trees anywhere. The commercial consequences of sudden "policy shocks" on both forest growing and wood-processing business are profound, even if the decrees are subsequently reversed.
- This task was genuinely difficult and complex. There were 3 parts to this Project: the study; the database; and the dissemination. The on-line information exchange (woodmaris.com) was only part of the third phase, not the entire Project. The fact that it eventually came off-line after 3 years does NOT mean the whole Project was a failure!
- There was much of value from this bold initiative which improved understanding amongst ALL the stakeholders about the operation of the value chain from forest plantation to selling manufactured timber products like furniture or plywood.
- There is still more that can be done to help the Government of the Philippines achieve its social, economic and environmental objectives in the Forestry Sector. FMB should continue to observe, to collect and analyse data, and contribute its understandings to the policy discussions.
- There may be worthwhile opportunities for further cooperation in this area to foster and promote more sustainable forest management in the Philippines and continuing development in the forest industries (especially plantation-based).

Overall Conclusions (on two projects)

- Without accurate, reliable, relevant and up-to-date data, any decision-makers can only rely on intuition – they can only guess! The development and implementation of a nation-wide Information System for the Forestry Sector is a very substantial achievement over the past decade. It has been sorely needed for a long time, and is now making a very significant improvement to operational management and longer term development of the forestry sector of the Philippines.
- It has been possible because of the combination of:
  - the external financial and technology support;
  - a strong emphasis on training and continuous improvement, which has fostered high levels of motivation and commitment among those who collect, verify and analyse the data;
  - a dedicated and enthusiastic leadership team in FMB who could see its enormous potential significance and enthuse others with that vision; and
  - the continuity of that implementation team.
- A good information system is an essential prerequisite for sound development of the forestry sector, but it is not enough. It must continue to evolve and it be used effectively. The FIS/GIS system is by no means perfect and is continuing to evolve as more uses of the system become apparent.
- There are continuing challenges:
  - as the 500+ trained staff are promoted and transferred, new replacement staff will also need training (although the current preparation of training manuals may alleviate this to some extent); and
  - replacements will be required as the initial computer hardware and software becomes either obsolete or unusable (technical maintenance for computers in more remote areas is still often difficult, the equipment is used under very tough operating environment - fluctuating electricity supplies, transport over rough roads, tropical climate, etc)
- There could be other challenges also. Many people in the Forestry sector may have thought collection of information and statistics was boring, irrelevant or unnecessary. It is increasingly and rapidly becoming clear that this view is incorrect. Knowledge is power, and accurate, timely reliable information is valuable. As DENR increasingly appreciates the power and value of the FIS, it may wish to add many more capabilities, tasks and modules. If it does so without corresponding resource inputs, there is a risk that the FIS becomes overloaded or weighed down. It could be a victim of its own success. Further, the ability to undertake comprehensive analysis of a national database may retard arbitrary, ill-informed political pronouncements, but some could feel threatened by this. The old excuse that "the file has been lost" will no longer be credible, and some might resent that also.

Overall Recommendations (on two projects)

- The government of the Republic of the Philippines should be encouraged to continue to maintain and use these new systems to their full potential. Since significant resources may be required for additional training in the FIS and MIS, and for replacement of expiring hardware and software, RP might approach ITTO (or others) for ongoing assistance.
- The ITTO and the Government of the Republic of the Philippines should jointly explore similar opportunities for further investments to build on the accumulated expertise and resources in this area of the forestry sector of the Philippines, particularly regarding:
  a) the continuing evolution of Sustainable Forest Management in the Philippines; and
  b) the on-going restructuring and relocation of both forest growing and forest-based processing activities throughout the country, in close consultation with the relevant industries/stakeholders.
- The ITTO should investigate whether other countries have a need for, and interest in, similar GIS and market information systems, now that their feasibility and worth has been clearly demonstrated in the Philippines (e.g. elsewhere in SE Asia, or in Africa). Publicising the Philippines' experiences with FIS/MIS (such as through *Tropical Forest Update*) might alert other countries to the potential to make similar improvements and progress towards SFM.

Table of Contents

1. INTRODUCTION

This report covers the *ex-post* evaluation of two closely related projects in the Philippines, supported by the ITTO and implemented by the Forest Management Bureau (FMB) of the Department of Environment and Natural Resources.

Both projects were in the area of **Economic Information and Market Intelligence**, and were managed by the FMB's Forest Economics Division. They are:

> ***"Development and implementation of the Pilot Project of the Forestry Statistics Information System – Phase I"*** PD 41/99 Rev 4 (M) July 2002 to December 2004; and
> ***"Timber and Timber Products Trade Flow Study of the Philippines"*** PD 133/02 Rev 3 (M) from September 2003 to September 2006.

These two Projects were followed by a closely related Project
"Adoption and implementation of the Forestry Information System for the Philippines" PD 353/05 Rev. 2 (M,F,I).

This was the follow-up to the pilot project 44/99, for the national roll-out of the FIS and GIS that the Pilot had developed and tested. It was signed in February 2007 and implemented by the same Executing Agency and Project Team, from July 2007 to December 2009. Although this Project is not directly the subject of this evaluation, it will be frequently cited in this report; the experiences of its implementation and subsequent impacts, are very relevant to the evaluation of the two earlier Projects.

Together these three Projects (and pre-Project preparatory studies before the former) constitute a thematic body of work extending over almost a decade. Although each Project has been relatively small, the cumulate ITTO contribution has been significant (approx USD 850 000 over 8 years) and the cumulative impact on achieving Sustainable Forest Management in the Philippines appears to have been even more significant.

2. EVALUATION SCOPE, FOCUS and APPROACH

Although there had been periodic visits from ITTO secretariat officers, this is the first time these Projects have been formally reviewed. Not only is it therefore an opportunity to assess the achievements and lessons from this long-term cooperation; it is also an opportunity to assess possible cooperation between the parties in the future, towards the shared vision of, and commitment to, Sustainable Forest Management in the Philippines.

There was no basis to suspect that the Projects' implementation had been deficient in any way – all periodic reports and accounts had been submitted in a timely and responsible manner – or that the impacts from the Projects was significantly below expectations. On the contrary, this evaluation focuses on what made these two Projects apparently successful, rather than the more common focus on "what went wrong and why?" There could be valuable lessons for similar Projects in other countries, or in different themes in the Philippines, from this suite of Projects.

The Terms of Reference for the Evaluation Mission (EvMiss) and the EvMiss Work Schedule are attached as Annex A. Briefly the EvMiss is tasked to

- Assess the effectiveness with which the Projects were implemented, in accordance with the agreed project design and Logical Frameworks, and their contribution to ITTA objectives (i to iv);
- Assess the efficiency of each Project's implementation and management (v);
- Assess their impacts and sustainability (vi and vii); and
- Document any unexpected impacts, positive or negative, and their causes.

The EvMiss consisted of only one consultant, Dr R Neil Byron.

Prof Byron is now a Professor at both the Australian National University's Crawford School of Economics and Government and the Fenner School of Environment & Society. He was previously the Commissioner responsible for Natural Resources, Environment & Sustainable Development at the Australian Productivity Commission (1998-2010) and prior to that, Assistant Director General of the Center for International Forestry Research (1993-98) based in Indonesia. He has led evaluation missions for many forestry projects in the Asia Pacific region for bi-lateral and multi-lateral technical assistance. He holds post-graduate degrees in

Forestry and Economics, and is a graduate of the Australian Institute of Company Directors. He is a non-executive Director of a substantial forest plantation company in New Zealand, and of Earthwatch (an international environmental NGO).

The approach to the evaluation was to

- ✓ Carefully review all Project documentation (initial ProDoc, Completion Reports, regular progress reports and reviews, and any related publications, prior to arrival in Manila;
- ✓ conduct detailed interviews with relevant Project personnel in FMB Head office, and with DENR Field staff involved with project implementation;
- ✓ interview some of the stakeholders involved in each of the Projects (e.g. forest industry operators and associations, forest managers).

Information from all sources was cross-checked with other data for verification.

Auditors' reports of the financial accounts have been studied.

The FIS/GIS systems were demonstrated and used by the EvMiss during field visits in Manila and the Regional Office of DENR for Region 3, in City of San Fernando, Pampanga. Copies were obtained of relevant files from FMB records in Manila HQ.

The EvMiss gratefully acknowledges the assistance of Mr. Marlo Mendoza, Director, Forest Management Bureau, Ms Mayumi Quintos-Natividad and all other staff of FMB and DENR offices in organising the mission, appointments and field trip, for providing relevant information freely and for their very constructive suggestions.

3. PROJECT FACTS:

Development and implementation of the Pilot Project of the Forestry Statistics Information System – Phase I" PD 41/99 Rev 4 (M)

The Forest Management Bureau in the Philippines has a very comprehensive 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 (if necessary) revision of policies and programs in the forestry sector.

To fulfil this mandate it is essential that the FMB [and DENR more generally] have access to comprehensive, reliable, up-to-date information about the current status and condition of forest resources and government programs. Unfortunately the pre-existing paper-based files and maps were frequently out of date, inconsistent or simply missing, which made it extremely difficult for FMB to fulfil its mandate well and efficiently.

The 1990 Master Plan for Forestry Development noted that its success would require a solid platform of information, planning methodologies, administration, research & development, and communications. A substantial investment in information technology was seen as prerequisite to these capabilities. A subsequent Forestry Statistics Information System (FSIS) development plan was prepared, and ITTO supported pre-Project preparation of this FSIS Project*.

Proposed Start	June 2002	Actual Start	June 2002
Proposed completion	May 2004	Actual Completion	Dec 2004
Proposed ITTO Contribution	$261081*	Actual ITTO Contribution	$261042
Proposed RP Contribution	$164200	Actual RP Contribution	$190750

Note * Pre-project cost of $63200 was included in ITTO Contribution

The FIS is essentially a database of all the tenure instruments (over 10,900) on all forest land across the Philippines (16 million ha). For each one, the FIS documents its history, leaseholder, current status, location, management plans, previous and projected outputs, and much additional information. The accompanying GIS contains all spatial data for each tenure instrument. When projected over a base map it is immediately clear if there are overlapping tenures, mis-mapped leases, or conflicts between production areas, Protected Areas, Ancestral Land Claims and mining leases, for example. Together, these enable analysis and

responses to issues that would previously have been virtually impossible. Also, areas suitable for new developments can be readily identified (including topography, soil type, current vegetation status etc.)

Following the [successful] completion of this Phase I Pilot Project, a subsequent Project - ***"Adoption and implementation of the Forestry Information System for the Philippines"*** PD 353/05 Rev 2 (M,F,I). – was agreed in February 2007 and implemented with ITTO support from July 2007 to June 2009, then extended (without increased budget) till completion in December 2009. The development, extension and upgrading of the FIS and GIS continues still, using regular (but very limited) government funding.

Proposed Start	July 2007	Actual Start	July 2007
Proposed completion	June 2009	Actual Completion	Dec 2009
Proposed ITTO Contribution	$477889	Actual ITTO Contribution	$369889#
Proposed RP Contribution	$238510	Actual RP Contribution	$247986#

Note # up to June 30 2009.

4. FINDINGS AND LESSONS LEARNED

Development and implementation of the Pilot Project of the Forestry Statistics Information System – Phase I PD 41/99 Rev 4 (M)

4.1 Findings

1. This Project was extremely ambitious and arguably essential to FMB's mandate, yet the funding allocated to it was very modest. There was no precedent in the Philippines for such a comprehensive modern IT system to meet the needs of policy/program design, and continuing monitoring of achievements, building upwards from records created at the level of local offices, nation-wide.

The Pilot Project, even on its limited scale of operating in only 2 of the 16 Regions, revealed how transformational such powerful IT systems can be. The two most striking examples are:

The FIS of existing tenure instruments (leases, licences, concessions etc) revealed not only the great number of tenures and their complexity but that the documentation for many was seriously deficient e.g. in terms of production, payment of rentals/licence fees.

The GIS revealed - when the old paper maps were transferred to a modern state of the art Geographic Information System – that many of the recorded locations of forest tenures were inaccurate; tenures over lapped; some were recorded as being in a different Province; the recorded location of one Community-Based Forest Management Agreement (CBFMA) was even in the South China Sea. There would be a huge task of identifying the correct boundaries of the 10900+ forest tenure instruments in the country, identifying and resolving actual overlaps on the ground, and officially amending "mistakes" on the affected legal documents.

2. The Pilot Program revealed how the emergent FIS/GIS could be used to enable

- much more comprehensive prioritisation (by Project, Theme or Region) for new initiatives by the Government DENR
- more accurate and timely monitoring of ongoing Projects, (by Theme or by Region)
- better ex-post evaluation of the achievements of specific Projects, or policy initiatives, in each Province or Region, and nationally; and
- new policy initiatives to be developed, as required, or the assessment of options for policy reform where it appears to be necessary.

For the first time, FMB would actually have the information base – available, up-to-date, verified/validated and accessible – to fulfil its mandated role and tasks: reviewing the performance of existing forest management processes and Projects, and developing new policy proposals and forest development/conservation options.

3. The Pilot Program was implemented very cost-effectively. In fact it is remarkable that it was able to achieve as much as it did "on a shoe-string". Management was very frugal and cost-conscious, and intent of achieving maximum value for money. For example, when changes to the USD/RP Peso exchange rate meant that fewer computers could be acquired than initially expected for the available budget, the EA found effective ways to stretch the budget further without compromising on the outputs.

Given the scope of the task (and that nothing like it had been previously attempted in the Philippines) the EA acquired all the necessary inputs, conducted the scheduled Activities (including a very comprehensive, ambitious but essential on-the-ground training program) and met its expected outputs and outcomes in a surprisingly short time period.

4. The merits of the Pilot Project, and the lessons learned during the Pilot phase, were extremely important to the subsequent refinement and roll out of the FIS/GIS nationally (see Chapter 7 below). The FIS/GIS is now being "mainstreamed" and is a core part of everyday business of FMB and increasingly the rest of DENR. Almost all foresters, in all Regional, Provincial and Community Offices (RENRO, PENRO & CENRO) come into contact with the FIS/GIS almost every day now, either providing data and information *INTO* the system, or using information *FROM* the system, as part of their normal activities. This is quite an achievement, and changes the way the FMB and DENR offices operate and enhances the impacts they can achieve.

5. FMB & DENR now have a much more comprehensive computerised information system which can be readily interrogated. The relevance and quality has been (or in some Regions, is still being) checked and validated for both the tenure instruments database and the spatial database. There is higher data-security than ever before, with backups of data in Regional and HQ Offices, so that files will no longer "go missing" or be subject to loss by equipment failure, office fire, etc. Only officials at CENRO level can enter or amend data – other levels can verify and/or query data – so national consistency is assured.

All the "end of Project" status benchmarks were achieved.

4.2 Lessons Learned

The Pilot Phase was ambitious and extremely challenging.

Thorough preparation ensured that time and resources were not wasted collecting and storing data that would be unnecessary or irrelevant.

Some difficulties were encountered, a few small mistakes were made and corrected, but overall the Project was completed on Budget and close to schedule. Perhaps its biggest achievement, apart from "proof of concept" was to develop a team of well trained and highly motivated officers who were willing and able to make the system work. This is a tribute to the EA management team.

5. PROJECT FACTS:

Timber and Timber Products Trade Flow Study of the Philippines" PD 133/02 Rev 3 (M)
This 24-month Project was prepared in 2002 in response to a series of reports which highlighted deficiencies in timber marketing in the Philippines and urgently called for development of a comprehensive market information system. The ProDoc was submitted in 2002, funding commenced from July 2003 and implementation commenced in September 2003. ITTO support continued until the Project was officially completed in September 2006 (a 1-year extension was required because restrictions on staff travel in Luzon for almost a year after the catastrophic floods in 2004, which delayed collection of data in the field, but the budget of USD 126927 from ITTO plus RP contribution of USD 69790 was unchanged). The web-based information system was live on-line until Sept 2009, when it was withdrawn. The current status of the market information system is 'watching brief' only, with occasional follow-up, although there are occasionally moves to revive it.

The rationale for this Project was well-researched in advance, and well justified.

There seemed to be a clear mismatch between

- processing industries claiming to be unable to access sufficient and/or reliable volumes of suitable log supplies; and

- forest plantation growers (esp those under IFMA (Industrial Forest Management Agreements) and CBFMA (Community Based Forest Management Agreements) who were increasingly concerned about being unable to find any buyers for their logs, or only at very low prices.

The proposal that the FMB Project could act as a "matchmaker" or honest broker" seemed like a very reasonable hypothesis. It was strongly supported by a number of previous domestic and international studies cited in the ProDoc. This was further supported by a national survey of all types of Stakeholders in all regions, which gave strong support for the proposed Project. Many respondents indicated a willingness to contribute to the maintenance of the web-based Market Information System after it was operational.

A comprehensive Logical Framework was prepared. A Problem Tree identified a series of 8 contributing factors leading to the observed unsatisfactory situation, 3 of which could be addressed by making additional information available on the supply chain, current markets, and prospective supplies and demands for logs.

The intended situation after Project completion was stated in the ProDoc as:
…problems that constrain the flow of timber and timber-based products in the Philippines shall have been identified and given recommended solutions. Inputs will be generated by the study, to formulate appropriate policies that will facilitate or remove unnecessary restrictions in the movement of product from legitimate sources… Should the Project gain the participation of a wide segment of the timber and timber products producers and processors, the possibility of later turning over the database and the information system to the private sector will be explored before the end of the Project.

The **implementation** of the Project went relatively smoothly (apart from delays caused by flooding noted above). Reports were prepared on schedule, training programs were completed successfully, funding tranches released on schedule, and audited acquittals of expenditure submitted on schedule.

6. FINDINGS AND LESSONS LEARNED:

Timber and Timber Products Trade Flow Study of the Philippines" *PD 133/02 Rev 3 (M)*

6.1 Findings

The initial survey engaged many stakeholders and generated a substantial amount of information, relevant to a number of subsequent forest policy debates.

The Forestry Information System and the GIS system created under the other ITTO-supported Projects revealed that many plantation areas were very small and often remote from existing wood-processing centres, which made the logistics of marketing plantation logs more problematic. Also many of the plantation managers were very focussed on growing their trees, and seemed to give insufficient thought to where, how and to whom they would market their log production once it was mature, and what prices they might receive.

There are also very important policy issues at stake:

- As mentioned in the ProDoc, there are significant economic and Balance of Payments effects of continually increasing log imports to sustain the Philippines' wood-processing industries and their employees (estimated at 481000 directly and over 300,000 indirectly as sub-contractors;
- the social consequences would be profound, **if** the CBFM initiatives (promoted by successive government administrations since early 1990s) fail because the timber grown cannot be sold at acceptable prices, sufficient to justify continuing community efforts and investment in tree-farming; and
- the Philippines government has a direct financial equity interest in the CBFMAs and IFAs, which could be worth billions of Pesos to consolidated revenue if the plantation logs are marketed successfully, but very little if marketing fails.

The web-based wood markets information system www.woodmaris.com was live at the completion of the ITTO assistance and for over 2 years subsequently. It has since lapsed. The principal reason is that none of the stakeholder organisations was willing to takeover the maintenance and updating of the website, once Project support ceased. This seems to suggest that the Project failed, at least in the sense of leaving behind a publicly visible, sustainable, viable operation run by its users/beneficiaries. However, the outcomes from this Project are more complex than that simple observation.

Given what is at stake, why wasn't the market information system eagerly embraced by the intended beneficiaries? Didn't they see the potential benefits? There are at least **5** possible explanations:

a) Although they could see the benefits of the system, no-one wanted to pay all the costs of maintaining ***woodmaris.com*** – the classic "free-rider" problem. If so, an alternative business model

might be a solution such as an annual subscription that gave all subscribers access to the valuable and commercially-sensitive information, but excluded non-subscribers.

b) Although there may be a need for an "honest broker" perhaps the stakeholders had reservations about whether FMB or DENR could fill that role. Many reported concerns about giving commercial data to any government agencies, despite assurances of confidentiality or anonymity. Periodic anti-timber industry statements from senior government officials may distort industry's perceptions of FMB. Perhaps there is another party who would be more acceptable to all as the "honest broker"?

c) It is possible that many forest growers and log-processors do not feel a need for an information system as they rely on long-term relationships with existing traders ("*suki*") as revealed by the survey. Trade may follow relationships of trust, reliability, log quality, etc rather than just spot prices in the marketplace.

d) Perhaps the potential benefits were outweighed by other factors? As the initial Problem Tree showed, there were at least 8 factors contributing to the present dysfunctional situation, only 3 of which were information-related and addressed by this Project. It is quite possible that the other 5 factors out-weighed and negated the potential benefits of a better market information system.

e) Furthermore, there were other factors outside the Problem tree but identified as Risks in the ProDoc – e.g. "unstable social and institutional-governmental condition" - which seem to have had very strong effects. For example, as a response to dramatic flooding, the Government suddenly introduced a total logging ban in 2005 – covering everything including planted trees of exotic species on private lands. This made ALL logging illegal, so no-one was interested in "advertising" the fact that they wanted to sell plantation logs illegally. Moreover, frequent sudden reversals of policy led to public misunderstanding and mistrust about the role of DENR and FMB in the marketing of forest produce. See also Box 1.

6.2 Lessons Learned

The principal lesson from the evaluation of this Project is that even a well-intentioned, well-designed, well-implemented Project can be totally overwhelmed by external factors that arise suddenly without warning. The implementation of the national ban on logging of any trees, even planted exotic species on private lands, in response to flooding after exceptional rainfalls, was one such "exogenous shock". Another was the sudden cancellation of **all** forest tenure agreements across 7 of the 16 Regions, or DENR restrictions on cutting or removing any trees anywhere.

The commercial consequences of sudden "policy shocks" on both forest growing and wood-processing business are profound, even if the decrees are subsequently reversed. Considering the policy shocks, it is remarkable that this Project achieved as much as it did.

Even though the *woodmaris.com* web-based market information system was shelved after 3 years due to inability to identify any organisation [other that FMB] that was willing to maintain and regularly update it, this Project was NOT unnecessary. Nor was it a "failure". As noted above, development of *woodmaris.com* was never intended to be the only or principal outcome or legacy from this Project, although it was certainly a highly visible one. There was much of value from this bold initiative, particularly the improved understanding amongst **all** the stakeholders – growers, processors, traders and government – about the operation of the value chain from forest plantation to selling manufactured timber products like furniture or plywood.

The analyses informed a much more comprehensive and sophisticated set of forest policies in this regard.

Despite the inability to pass on ***woodmaris.com*** to an existing organisation representing companies or individuals in the supply chain, there could still be a new "patron" for ***woodmaris.com***. For example, the Philippine Export Development Council is examining it, as a possible way of re-directing some of the plantation logs that cannot find suitable buyers domestically, onto the rapidly expanding international market. Other contenders could emerge. If there is still a role for "an honest broker" in the wood markets, some other entity could emerge, or different business models such as a subscription-based service (rather than one provided free to anyone).

The public face of the wood market information system is not "dead and buried" merely in hibernation.

Box 1 Effects of New Policies on Wood Markets

In 2005 the Secretary of DENR introduced a new policy, suspending the issuance of any new licences for wood processing plants, intended to reduce or eliminate illegal logging. However, it did not take into account the fact that many of the new (government-assisted) plantations on leased and private lands were rapidly maturing.

The plantations yielded different species and sizes of logs to what the old processing mills were used to, often in quite different areas and often for new products and new market destinations. Older mills designed to process large old dipterocarp logs from natural forests are inappropriate for processing smaller plantation logs.

The result of this suspension was that no new processing plants, especially designed to utilise the plantation logs, could be built in appropriate locations. This made it extremely difficult, if not impossible, for the growers to market their log produce at reasonable prices. This in turn became a huge disincentive for any further private investment in timber plantations – in direct contrast to stated government policies.

The National Forest Information System and GIS revealed that many of the private plantations are in small holdings in areas remote from existing mills. The FMB analysis of the timber market flows and the "value-chain" from plantation to retail sale of wood products also revealed that the absence of new processing capacity was completely inconsistent with a viable and sustainable plantation-based wood market.

As a result of the FMB analysis, the DENR suspension was lifted, subject to "Regional Wood Rationalisation Plans" which would encourage the closure of obsolete and redundant mills in areas where wood supplies were scarce, and opening of new processing capacity of appropriate design for plantation logs, in areas where future supplies of such logs were rapidly developing. FMB analysis of current and potential log supplies, using the FIS/GIS and the wood markets analyses, were an integral part of this rationalisation. Such informed policy advice would not have been possible without this Project.

7. ADDITIONAL OBSERVATIONS

Adoption and implementation of the Forestry Information System for the Philippines PD 353/05

As noted on page 7 above, the lessons learned during the Pilot phase were extremely important to the subsequent refinement and roll out of the FIS/GIS nationally.

The FIS/GIS is now being "mainstreamed" and is a core part of everyday business of FMB and increasingly the rest of DENR. Almost all foresters, in all Regional, Provincial and Community Offices (RENRO, PENRO & CENRO) come into contact with the FIS/GIS almost every day now, either providing data and information INTO the system, or using information FROM the system, as part of their normal activities. This is quite an achievement. It changes the way the FMB and DENR offices operate and enhances their effectiveness and productivity, and the impacts they can achieve.

Although this ITTO Project is officially completed, the FIS/GIS continues to evolve and expand using GRP resources. On one hand, this is very positive as it shows explicit national recognition of (and commitment to) the value of the information systems that have been created. Yet it is also a constraint as the available funding is limited, while the opportunities for expansion-extension-upgrading are so great. As others in the FMB, and the DENR more broadly, come to understand and appreciate how transformational it is to have good information systems, more development-extension opportunities are being suggested: to make it

- **Wider**, involving more sectors within DENR such as tracking existing and proposed mining leases, or Protected Areas. Although not the responsibility of the FMB, they frequently involve forest lands and intersect with the work of the FMB. For example, Bureau of Mines now routinely asks FMB to check locations and existing land-uses and tenures on the GIS before making decisions. Even more broadly, agencies outside of the DENR portfolio and Local Government Units, are seeking to use the Forestry GIS to cross-check their development plans. Now that the system exists and is proven, new ideas are emerging all the time for how it can be applied to make better decisions in more and more areas involving forest lands.
- **Deeper**; The existing system has a deliberate focus on tenures for wood production, but it also has capability to do more, such as monitor Forest Watersheds, and the quantity and quality of water

production from them. This information would help facilitate multiple use forest management, and would be invaluable to water supply authorities and local governments; and

- **Longer time span**; Most information relating to the past 5 years is in the FIS/GIS and has been validated. But as one goes further back in time, there were more instances of "lost or missing files" – indeed some details may never have been accurately recorded, even in paper files and maps. Filling these historical gaps and blanks in the FIS/GIS can be extremely expensive and time-consuming now. Indeed in some case, with low priority, it may simply not be worth the effort, while in other high-priority cases, the data will have to be obtained even if that is difficult. Similarly, the current system focuses on current outputs and short-term projections. It might be worthwhile in some cases to further develop the "forward-looking" capability of the FIS. And
- **More integrated** across the FIS and the GIS sub-systems. At present the FIS can import images of the spatial data (maps) across into the data files, but it should not be too difficult to create an inter-active link to unify the sub-systems, thereby making the whole information system even more powerful and useful.

8. OVERALL CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

Without accurate, reliable, relevant and up-to-date data, any decision-makers can only rely on intuition – they can only guess! The development and implementation of a nation-wide Information System for the Forestry Sector - that starts from the basic level of government administration in the CENROs, and build upwards through the Provincial and Regional Office to Headquarters in Manila - is a very substantial achievement over the past decade. It has been sorely needed for a long time, and is now making a very significant improvement to operational management and longer term development of the forestry sector of the Philippines.

It has been possible because of the combination of

- external financial and technology support,
- a strong emphasis on training and continuous improvement, which has fostered high levels of motivation and commitment among those who collect, verify and analyse the data, and
- a dedicated and enthusiastic leadership team in FMB who could see its enormous potential significance and enthuse others with that vision. FMB/DENR staff involved in Team FIS are very motivated and enthusiastic, because of the personal rewards of professional development and desire for greater "computer literacy"

A good information system is an essential prerequisite for sound development of the forestry sector, but it is not enough. It must continue to evolve and it must be used effectively.

The FIS/GIS system is by no means perfect and **is** continuing to evolve as more uses of the system become apparent. There are continuing challenges:

- as the 500+ trained staff are promoted and transferred and replaced by new staff who will also need training (although the current preparation of training manuals may alleviate this to some extent); and
- as the computer hardware and software becomes either obsolete or unusable (technical maintenance for computers in more remote areas is still often difficult, the equipment is used under very tough operating environment - fluctuating electricity supplies, transport over rough roads, tropical climate, etc)

There could be other challenges also. Many people in the Forestry sector may have thought collection of information and statistics was boring, irrelevant or unnecessary. It is increasingly and rapidly becoming clear that that view is incorrect. Knowledge is power, and accurate, timely reliable information is valuable. As DENR increasingly appreciates the power and value of the FIS, it may wish to add many more capabilities, tasks and modules. If it does so without corresponding resource inputs, there is a risk that the FIS becomes overloaded or weighed down. It could be a victim of its own success. Further, the ability to undertake comprehensive analysis of a national database may retard arbitrary, ill-informed political pronouncements, but some could feel threatened by this. The old excuse that "the file has been lost" will no longer be credible, and some might resent that also.

8.2 Recommendations

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.

ANNEX I
Terms of Reference for the Ex-Post Evaluation of ITTO Projects

Background

At its Thirty-sixth and Forty-second Sessions in 2005 and 2008, the ITTO Committee on Economic Information and Market Intelligence inter alia decided that the ex-post evaluation be carried out in respect of the following statistical development projects completed in the Philippines:

1.	PD 41/99 Rev.4 (M)	Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS). (Philippines)
2.	PD 133/02 Rev.3 (M)	Timber and Timber Products Trade Flow Study in the Philippines (Philippines)

i. Assess each project's design and contribution to the achievement of their general objectives, outputs and specific objectives.

ii. Assess the projects' contributions to the relevant ITTA objectives and ITTO Action Plan elements.

iii. Evaluate the impact and relevance of each project and determine to what extent each project has contributed to efforts of the government in developing its forest and forest products information capacity.

iv. Assess the overall post-project situation in relation to the impacts of both projects on timber and timber products information flows in the Philippines.

v. Analyze and assess the efficiency of each project's implementation and management, including technical, financial and managerial aspects.

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

vii. Taking into account the results of the evaluation, make an overall assessment of the projects' 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. Key recommendations should refer to the sustainability of project outputs, particularly PD 41/99 and the ongoing follow-up project PD 353/05.

viii. Define and assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrences.

ix. The evaluation report shall be prepared in accordance with the format for the Project Evaluation Report as contained in the ITTO Manual for Project Monitoring, Review and Evaluation (copy attached). The evaluation work shall be conducted to answer the questions identified in the ex-post evaluation checklist provided in the Manual (page 35).

III. Proposed Work Schedule

The proposed work schedule for the assignment is as follows, subject to finalization by the ITTO Secretariat.

April 2010	1.	Review all project outputs and related material (previous project reports, follow-up project documents, list of contacts, etc). The exact dates for travel to the Philippines will be determined in consultation with the ITTO Secretariat.
May 2010 (1 week)	2.	Meeting of the consultant with the Implementing Agency and project personnel in Manila for refinement of the draft work programme for the assignment, briefing and comprehensive discussions on and analysis of project implementation and results as well as undertaking field visits. Discussions with relevant stakeholders involved in, or impacted by, the projects.

June 2010	3.	Submission of draft report to both the ITTO Secretariat and the Implementing Agency for comments and suggestions.
August 2010	4.	Submission of the final report to the ITTO Secretariat , including an executive summary, an article for TFU and fifteen or more high-resolution photographs for each project compiled in a CD along with data on each photograph according to the *proforma* to be provided by the ITTO Secretariat.
December 2010 (1 week)	5.	Presentation of the report at the Forty-fourth Session of the ITTO Committee on Economic Information and Market Intelligence (December 2010; Yokohama, Japan)

The assignment will require travel to Manila (Philippines). It will also require travel to Yokohama, Japan during the period 13-18 December 2010 for presentation of the evaluation report to the Forty-fourth Session of the Committee on Economic Information and Market Intelligence.

Supporting Documents

(1) Project document and final report of PD 41/99 Rev.4 (M) (and any other outputs including all project progress reports)
(2) Project document and final report of PD 133/02 Rev.3 (M) (and any other outputs including all project progress reports)
(3) Project document PD 353/05 Rev. 2 (M) (a follow-up project to PD 41/99 Rev. 4 (M)) and all progress reports.
(4) ITTO Manual for Project Monitoring, Review and Evaluation
(5) Guidelines for TFU article preparation, including Photo Database form

ANNEX II
EXECUTING AGENCY'S VIEWS AND RESPONSE TO EVALUATION

A formal response from FMB and DENR has not yet been received, but at the debriefing meeting in Manila in May, the Director General of FMB indicated provisional acceptance of all the findings of the Evaluation Mission