



**INTERNATIONAL TROPICAL
TIMBER COUNCIL**

**COMMITTEE ON ECONOMICS,
STATISTICS AND MARKETS**

COMMITTEE ON FOREST INDUSTRY

Distr.
GENERAL

CEM-CFI(XLVIII)/3 Rev.1
27 October 2014

ENGLISH ONLY

FORTY-EIGHTH SESSION
3-8 November 2014
Yokohama, Japan

EX-POST EVALUATION REPORTS

EXECUTIVE SUMMARIES

ITTO Project PD 406/06 Rev.1 (M)
Establishment of the National Forest and Timber Marketing Statistics System
(Ecuador)

ITTO Project PD 40/00 Rev.4 (I)
Utilization of Small-Diameter Logs from Sustainable Source for Bio-Composite Products
(Indonesia)

ITTO Project PD 334/05 Rev.2 (I)
Demonstration and Application of Production and Utilization Technologies for Rattan Sustainable Development in the ASEAN Member Countries
(Philippines)

ITTO Project PD 523/08 Rev.1 (I)
Operational Strategies for the Promotion of Efficient Utilization of Rubber Wood from Sustainable Source in Indonesia
(Indonesia)

[Complete reports are available upon request from the Secretariat.]

TABLE OF CONTENTS

		Page
PD 406/06 Rev.1 (M)	Establishment of the National Forest and Timber Marketing Statistics System (Ecuador)	1
PD 40/00 Rev.4 (I)	Utilization of Small-Diameter Logs from Sustainable Source for Bio-Composite Products (Indonesia)	8
PD 334/05 Rev.2 (I)	Demonstration and Application of Production and Utilization Technologies for Rattan Sustainable Development in the ASEAN Member Countries (Philippines)	14
PD 523/08 Rev.1 (I)	Operational Strategies for the Promotion of Efficient Utilization of Rubber Wood from Sustainable Source in Indonesia (Indonesia)	22

ITTO Project PD 406/06 Rev.1 (M)

**Establishment of the National Forest and
Timber Marketing Statistics System
(Ecuador)**

**EX-POST EVALUATION REPORT
[EXECUTIVE SUMMARY]**

**[This Executive Summary was submitted by the
consultant in English and Spanish.
Both versions are included in this document.]**

**The full report of the ex-post evaluation in Spanish only is
available on request from the Secretariat.**

Prepared for ITTO

by

Dr. Luiz Carlos Estraviz Rodriguez

Executive Summary

Purpose of the evaluation and goals of the Project

The ITTO Committee on Economics, Statistics and Markets recommended to the International Tropical Timber Council at its Forty-seventh Session held in Libreville, Gabon on 25-30 November 2013, the ex-post evaluation of the completed project PD 406/06 Rev.1 (M) "Establishment of the National Forest and Timber Marketing Statistics System (Ecuador)", co-funded by the government of Ecuador.

The ex-post evaluation reports on evidences that a computerized system planned to collect, process, record, check, disseminate and feedback data on forest harvesting and wood movement was effectively developed in Ecuador; investigates whether a database maintained by the system allows users to produce reports and inquiries, including the emission by government officials of wood mobilization permits and licenses; reports on how the system is integrated into the internet and offers remote access for queries; and evaluates the existence of guidelines and training opportunities for users of the system.

The ex-post evaluation sought to complement the information available in the project and in the final report. Members of the executive group of the project were contacted by telephone and email, and a visit was made to the offices where these group members effectively work. Finally, all the information collected was compiled for the development of this report.

The project's main objective was to implement a forest management information system (SAF) that enables the Ministry of Environment of Ecuador to manage forest resources, from their use in the field to the final delivery in local and international markets. The system aims to generate information for the public and private industry and facilitates automation of processes at the national level for review, approval, monitoring and control of forest management plans and forest harvesting programs as well as the mobilization and consumption of wood nationwide. Its development also provides a platform for the review and verification of geographical coordinates of the areas subject to harvesting.

Scope and implementation of the evaluation

The ex-post evaluation assesses the extent to which the objectives and expected results of the project have been achieved. It records the impact and relevance of the project and determines to what extent the project has contributed to the development of a system of statistics on market timber and forest resources in order to collect, process, record, review, and disseminate feedback information generated in the Ecuadorian forestry sector. It also determines the effectiveness of information dissemination of the project results, highlights its outcomes and impacts, and makes an overall assessment of benefit, describing main achievements and products of the project.

In situ information and evidence of effective implementation of the project were collected from July 28th to August 1st 2014. Different professionals directly or indirectly involved in the activities supported by the ITTO project PD 406/06 were visited. Public governmental offices and private facilities of institutions related to the management of forest resources in Quito were visited. During the period of contact and visits, the interviewed person was asked to provide statements and evidences that could corroborate positive and negative results of the project. One of the main checkpoints for monitoring mobilization of forest products allowed contact with forest control agents, and direct contact with the functionalities of the system that efficiently allowed them to confirm the registration of the permits presented by truck drivers. All interviewed professionals produced rich material, including very comprehensive documents such as manuals, CDs, photographs etc., which sufficiently supported the assessment presented in this report.

Assessments of the outcomes of the project

Assessments made *in situ* confirmed that all three objectives were met: (i) build up the National Forest Directorate's management, follow-up and monitoring capabilities through the development of a forest statistics information system; (ii) establish a mechanism to promote active involvement of the forest sector in the use and generation of statistical information; and (iii) encourage the flow of geo-referenced information related to the use of forest statistics on native forests.

Reached goals effectively corroborate the fulfillment of these objectives: (i) a system for the management of forest resources at the national level from its use in the forest to final transportation as a finished product has been developed and implemented; (ii) the developed system generates and allows for the input of information that feeds a central database enabling consolidation, organization and consultation; (iii) an adequate

technological solution was adopted to enable connectivity and well coordinated management with the effective participation of all involved institutions and organizations; (iv) there is a regulatory legal framework that persuades stakeholders to participate; (vi) communications and outreach material was developed to inform stakeholders. Many of these outcomes have effectively exceeded in quality and quantity those initially planned.

Therefore, all planned outcomes of the project have been achieved. The collection, recording, filing, analysis and use of data on forest resource harvesting and movement of forest products is currently available by means of a computerized and networked system. The system is operated by an adequate supply of trained personnel in sufficient numbers working at the right site. The system provides relevant documents, such as forest harvesting licenses and forest timber and non-timber product waybills. All necessary equipment for suitable maintenance and networking, as well as for communication among offices throughout the country, were acquired and are running efficiently.

The system databases currently stores a significant amount of registered users and a substantial quantity of forest transactions has been recorded since the launch of the system in 2009-2010. This represents an impressive improvement on monitoring capacity considering the previous situation and offers to government officials and all participants in the forest chain of custody very relevant information. The ex-post assessment has concluded that there were no significant deviations from the initially planned activities, leading to the satisfactory results predicted in the project.

The main outcome of the implemented strategy is the convergence of data and information flows in an arrangement that has facilitated the operation of the National Forest Directorate while promoting user participation and intensifying the use of geo-referenced statistical information. As predicted in the project, this outcome has significantly strengthened the capacity of the Ecuadorian government to manage, monitor and disseminate information on how forest resources are contributing to promote national development.

Use of financial resources

ITTO funds donated to the project (\$ 454,148) were adequately complemented by contributions from the government of Ecuador which were initially estimated in \$ 569,401. Currently the government of Ecuador has maintained its commitment to the project. The support has continued even after the end of the contract with ITTO in terms of payments for computer services and system development. These complementary contributions from the government of Ecuador are now estimated at over one million dollars.

Lessons learned, conclusions and recommendations

The relative success of the project was achieved due to a well orchestrated set of previously planned activities implemented in phases and to other governmental initiatives that are external to the project. These initiatives have consistently built the foundations to promote the rational use of forest resources and services in Ecuador. Certainly all positive outcomes in the project are the result of perseverance and dedication of governmental officials working together with targeted beneficiaries including all main representatives of the private sector in Ecuador. The Ecuadorian government is currently implementing a very significant set of policies to promote economic and social development based on the use of forest resources. These policies include credit and tax incentives to expand total area with planted forests and native managed forests. The accumulated experience on developing the SAF system is now being used to accommodate the decision of transferring the governmental responsibilities on monitoring forest plantations from the Ministry of Environment to the Ministry of Agriculture. The development of a similar system that seamlessly integrate to SAF and specifically deals with forest plantations is in its final phase. Such important decision on splitting the responsibilities of managing forest resources will supposedly not affect the way forest information was being managed on a single database. Although managed by different Ministries, it is strongly recommended that SAF ran by the Ministry of Environment to monitor the use of native forests and the new system to be ran by the Ministry of Agriculture walk hand-in-hand sharing the same database.

The Ecuadorian experience on developing a successful national forest and timber marketing statistics system can be reported as a successful case. Hopefully current events and changes on forest policies undergoing in Ecuador will contribute to maintain this successful case an example to rest of the world.

Management response from Implementing Agency staff

The following comments are extracted from email exchanges between the relevant staff of the implementing agency and the consultant responsible for the ex-post evaluation.

Comments by Fernando Diaz (National Forest Director, Ministry of the Environment):

With regard to the forest plantation logging programs, it should be noted that Executive Decree No. 286, issued on 3 April 2014 and published in the Second Supplement of Official Gazette No. 231 of 23 April 2014, transfers the responsibility for the regulation of forest plantations and their sustainable management for commercial purposes, as established in the Forestry and Natural Areas and Wildlife Conservation Law, from the Ministry of the Environment to the Ministry of Agriculture, Livestock, Aquaculture and Fisheries. To this end, the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (*Ministerio de Agricultura, Ganadería, Acuacultura y Pesca* - MAGAP) has established the Forest Production System with similar objectives to those of the Forest Administration System (SAF) but with a special focus on forest plantations.

Comments by Milton Ordoñez (National Forest Directorate, Ministry of the Environment):

As stated in the report of the ex-post evaluation of ITTO Project PD 406/06 Rev.1 (M), "Establishment of the National Forest and Timber Marketing Statistics System", on behalf of the National Forest Directorate of the Ministry of the Environment of Ecuador, I should point out that the Forest Administration System is a very important computerized tool for the development of the forest sector in Ecuador and constitutes a fundamental pillar for the establishment of good forest governance by providing appropriate, timely and reliable information.

This system has been developed on a digital platform that allows for national-level integration of all Forest Technical Offices responsible for the approval of integrated management plans, forest management programs and harvesting programs, as well as for the automation of the different services provided by these offices.

Furthermore, the Forest Administration System (SAF) facilitates the establishment of a national database of forest sector stakeholders and the production of online reports on forest activities including forest administration, management and monitoring processes in the country.

Some of the main achievements of SAF include:

- Transparency in the activities of forest sector stakeholders
- Accountability of forest technicians
- Accountability within forest technical offices
- Improved quality of forest administration practices
- Improved capacity and efficiency in the National Forest Directorate
- Improved ability to control corruption within the forest sector.

The activities of the National Forest Monitoring System are based on the implementation of SAF as a cross-cutting system for the management of forest activities that generates information and thus facilitates forest monitoring, including forest supervision and verification activities, while promoting legality in forest operations from the forest harvesting stage to the transport of products to their final destination.

Finally, I would like to make the following observations regarding the document:

- The acronym CAE ("Corporación Aduanera Ecuatoriana" – Ecuadorian Customs Corporation) should be replaced with SENA ("Servicio Nacional de Aduanas del Ecuador" – National Customs Service of Ecuador).
- The programs are not timber logging programs. The existing forest regulations define *Forest Management Programs* (sustainable forest management programs, simplified forest management programs and programs for legal conversion areas) and *Forest Harvesting Programs* (forest plantations, planted trees, relict trees, natural regeneration trees and pioneer species).
- Replace the term "logging licenses" with "forest harvesting licenses".
- Replace the term "timber product transport permits" with "forest timber and non-timber product waybills".
- Currently, the SAF system only provides for the issue of waybills WITH IDENTIFIED END DESTINATION as established in the current forestry legislation and therefore the item "guías de circulación SIN DESTINO con declaración posterior" (*waybills WITHOUT IDENTIFIED END DESTINATION pending subsequent declaration*) should be deleted from Table 2 ("Main SAF Functionalities").

[Spanish Version]

Resumen Ejecutivo

Propósito de la evaluación y los objetivos del proyecto

El Comité de Economía, Estadísticas y Mercados de la OIMT recomendó, y el Consejo de la OIMT reunido en Libreville en noviembre de 2013 aprobó, la recomendación de una evaluación *ex post* del proyecto PD 406/06 Rev.1 (M) "Establecimiento de un sistema nacional de estadísticas forestales y comercialización de madera", cofinanciado por el gobierno de Ecuador. Esta evaluación *ex-post* busca evidencias de que se haya logrado la construcción de un sistema informático para la recolección, el registro, archivo, análisis y uso de los datos del aprovechamiento y los movimientos de la madera. Toda esta información debe integrarse en una base de datos de la cual ya se puedan extraer informes y consultas, como la emisión de licencias y guías de movilización de madera, la disponibilidad de acceso al sistema para consultas vía internet y, por último, la existencia de una documentación informativa y de acciones regulares de divulgación y capacitación sobre el uso del sistema.

La evaluación *ex post* buscó inicialmente informaciones complementarias al material disponible, tanto en el proyecto como en el informe final. Después de contactar, telefónicamente y por correo electrónico, a los integrantes del grupo ejecutivo del proyecto, se realizó una visita a las oficinas donde trabajan las personas que tuvieron una participación efectiva en el desarrollo del sistema. Por fin, toda la información recogida fue recopilada para la elaboración de este informe.

El proyecto tuvo como objetivo principal implementar un sistema informático de administración forestal (SAF) que permita al Ministerio del Ambiente de Ecuador administrar los recursos forestales desde su aprovechamiento en el campo hasta su comercialización en mercados locales e internacionales. El sistema busca generar información para los sectores público y privado, y, además, facilitaría la automatización de los procesos a nivel nacional para la revisión, aprobación, seguimiento y control de los planes y los programas de manejo forestal y programas de corta, así como su movilización y consumo a nivel nacional. Su desarrollo ofrece complementariamente una plataforma para la revisión, comprobación y verificación de las coordinadas geográficas donde se sitúan las áreas sometidas al aprovechamiento forestal.

Propósito e implementación de la evaluación

La evaluación *ex post* evalúa el grado en que se han alcanzado los objetivos y los resultados esperados del proyecto, registra el impacto y la relevancia del proyecto y determina en qué medida el proyecto ha contribuido para el desarrollo de un sistema de estadísticas sobre el mercado de maderas y los recursos forestales con el fin de recopilar, procesar, registrar, revisar, difundir y retroalimentar la información generada en el sector forestal ecuatoriano. Por otro lado, se determina la eficacia de la difusión de la información de los resultados del proyecto, destacando sus efectos e impactos, y realizando una evaluación general de los logros y beneficios, además de describir los principales productos del proyecto.

En concreto, se recogieron informaciones *in situ* y evidencias de la efectiva implementación del proyecto desde el día 28 de Julio al primero de agosto del año 2014. Las personas que directa o indirectamente participaron de las actividades apoyadas por el proyecto PD 406/06 de OIMT fueron visitadas. Dichas visitas se han realizado en Quito, tanto en las oficinas públicas del gobierno, como en las de entidades privadas ligadas al sector forestal. Durante el periodo de contacto, y durante las visitas, a los interlocutores se les pidió que ofrecieran pruebas o evidencias con el fin de que pudieran comprobar tanto los resultados positivos como negativos de este proyecto. Uno de los principales puestos de control de la movilidad de productos forestales permitió el contacto con agentes forestales encargados de la fiscalización y, además, un contacto directo con las funcionalidades del sistema que, en ágil sincronismo, les permitía confirmar el registro de las guías presentadas por los transportistas. La interacción con todos los entrevistados ha producido un amplio material, incluso documentos más extensos (como manuales, CDs, fotografías etc.), que garantizan la efectiva redacción de este informe.

Evaluación de los resultados del proyecto

Las evaluaciones realizadas *in situ* confirmaron que se han cumplido los tres objetivos: (i) fortalecer la gestión de la Dirección Forestal Nacional, el seguimiento y la capacidad de supervisión a través del desarrollo de un sistema de información estadística forestal; (ii) establecer un mecanismo para promover la participación activa

del sector forestal en el uso y la generación de información estadística; y (iii) fomentar el flujo de información geo-referenciada relacionada con el uso de las estadísticas forestales en los bosques nativos.

Además, se alcanzaron ciertas metas que corroboran efectivamente el cumplimiento de los objetivos: (i) se ha desarrollado y puesto en práctica un sistema para la gestión de los recursos forestales a nivel nacional desde el bosque hasta el transporte de productos finales; (ii) el sistema desarrollado genera y permite la entrada de información que alimenta una base de datos central permitiendo la consolidación, la organización y la consulta de datos; (iii) se adoptó una solución tecnológica adecuada para permitir la conectividad y una gestión bien coordinada con la participación efectiva de todas las instituciones y organizaciones involucradas; (iv) existe un marco legal regulatorio que incita a las partes interesadas a participar; (v) se han producido tanto comunicaciones como material de divulgación diverso para informar a las partes interesadas. Muchos de estos resultados han superado de manera efectiva, en calidad y cantidad, los objetivos previstos inicialmente.

Por lo tanto, se han alcanzado todos los resultados previstos en el proyecto. La recogida, registro, archivo, análisis y uso de datos sobre la recolección de recursos forestales y circulación de productos forestales se encuentra actualmente disponible a través de un sistema computarizado y en red. El sistema es operado por un personal capacitado, en número suficiente y que trabaja en instancias coordinadas por las debidas autoridades del gobierno. El sistema produce los documentos pertinentes, como licencias de aprovechamiento forestal y las guías de circulación de productos forestales maderables y no maderables. Todo el equipo necesario para un mantenimiento adecuado y la creación de redes, así como para la comunicación entre las oficinas en todo el país, fue adquirido y está funcionando de manera eficiente.

Las bases de datos del sistema almacenan actualmente una cantidad significativa de usuarios registrados y cantidad considerable de transacciones forestales han sido registradas desde el lanzamiento del sistema entre 2009 y 2010. Esto representa una notable mejora de la capacidad de supervisión si se lleva en cuenta la situación anterior, con una mejora significativa de la oferta de información tanto para los funcionarios del gobierno como para todos los demás participantes de la cadena forestal de custodia. La evaluación *ex post* ha llegado a la conclusión de que no hubo desviaciones significativas de las actividades previstas inicialmente, y que se alcanzaron los resultados inicialmente previstos en el proyecto.

El principal resultado de la estrategia implementada es la convergencia de datos y flujos de información, lo que ha facilitado el funcionamiento de la Dirección Forestal Nacional, mientras se promueve también la participación de todas las partes interesadas y se intensifica el uso de información estadística georreferenciada. Como se recogía inicialmente en el proyecto, se percibe un fortalecimiento significativo de la capacidad del gobierno ecuatoriano para administrar, controlar y difundir la información sobre cómo los recursos forestales están contribuyendo para la promoción del desarrollo económico nacional.

Uso de los recursos financieros

Para la ejecución del proyecto fueron otorgados \$454.148 por la OIMT, con un considerable aporte complementario del gobierno de Ecuador que amplió sustancialmente el presupuesto total, estimado inicialmente en \$569.401. Los aportes presupuestarios del gobierno de Ecuador superaron los compromisos durante el proyecto, y se siguen produciendo después de la finalización del contrato con la OIMT de acuerdo con los pagos por servicios informáticos tanto de manutención como de evolución del sistema. Dichos aportes complementarios totales del gobierno de Ecuador son hoy en día estimados en más de un millón de dólares.

Lecciones aprendidas, conclusiones y recomendaciones

El relativo éxito del proyecto se logró gracias a un conjunto bien orquestado de actividades previamente planificadas e implementadas en etapas conjuntamente con otras iniciativas gubernamentales externas al proyecto. Esas iniciativas han construido sistemáticamente las bases para promover el uso racional de los recursos y servicios forestales en Ecuador. En efecto, todos los productos positivos del proyecto son resultado de la perseverancia y dedicación de los funcionarios gubernamentales que trabajaron junto con los activos representantes de las partes interesadas, incluyendo importantes miembros del sector privado en Ecuador.

Actualmente, el gobierno de Ecuador está implementando un conjunto muy significativo de políticas para promover el desarrollo económico y social basado en el uso racional de los recursos forestales. Esas políticas incluyen incentivos crediticios y fiscales para ampliar la superficie total de plantaciones forestales y de bosques nativos sujetos a un manejo forestal. La experiencia acumulada en el desarrollo del

sistema SAF se está utilizando ahora para apoyar la decisión de transferir las responsabilidades gubernamentales en el seguimiento de las plantaciones forestales del Ministerio del Ambiente (MAE) al Ministerio de Agricultura (MAGAP).

Un sistema similar para tratar específicamente de las plantaciones forestales, que se integraría en el SAF, está en su fase final de desarrollo. La importante decisión de dividir las responsabilidades por la gestión de los recursos forestales entre esos dos ministerios, en principio no afectaría a la información forestal, dado que seguirá ordenada en una sola base de datos. Aunque en la actualidad el recurso forestal se encuentre gestionado por diferentes Ministerios, se recomienda enérgicamente que el SAF gestionado por el Ministerio del Ambiente para el monitoreo e uso de bosques nativos y el nuevo sistema gestionado por el Ministerio de Agricultura caminen mano a mano compartiendo funcionalidades y datos.

En síntesis, la experiencia ecuatoriana de desarrollar un sistema de administración forestal para la generación de estadísticas nacionales puede ser reportada como un caso exitoso que puede servir de ejemplo para otros países. Por último, será preciso asegurarse que los cambios en las políticas forestales actualmente en curso en Ecuador no disminuyan el éxito de esta iniciativa, y que contribuyan para que Ecuador sirva de modelo a otros países del mundo.

ITTO Project PD 40/00 Rev.4 (I)

**Utilization of Small-Diameter Logs from
Sustainable Source for Bio-Composite Products
(Indonesia)**

**EX-POST EVALUATION REPORT
[EXECUTIVE SUMMARY]**

Prepared for ITTO

by

Prof. Zhou Yongdong

Executive Summary

1. Introduction

The Committee on Economics, Statistics and Markets and the Committee on Forest Industry (CEM-CFI), at their Forty-sixth Session in November 2012 decided that an ex-post evaluation for CFC/ITTO/62 PD 40/00 Rev. 4 (1) - should be carried out to establish how well the project served its purpose and to draw up recommendations for future action.

The project CFC/ITTO/62 PD 40/00 Rev. 4 (1) had been implemented by the Government of Indonesia (GOI) with Faculty of Forestry, Bogor Agricultural University (IPB) as the executing agency and University Putra Malaysia (UPM), Forest Product Research and Development Institute, Philippines (FPRDI), and Forest Research Institute (FRI), Papua New Guinea as the collaborating agencies; for forty-nine months starting November 2007 with a total sanctioned budget of US\$ 865,163 comprising contributions of ITTO and GOI in the amounts of US\$ 600,000, US\$ 265,163, respectively.

The specific objectives of the project were: a) To assess market needs of bio-composite products made from SDL from the tropical rain forest, and b) to determine the wood properties and utilization technology of SDL and transfer this technology for manufacturing of value-added bio-composite products.

2. Evaluation scope, focus and approach

The primary purpose of the ex-post evaluation is to learn lessons from the project and to draw conclusion for future project that all aspects of the project, from its inception to its completion regarding administrative and financial matters, organizations, communication, consultation and cooperation need to be assessed.

The ex-post evaluation was carried out in August 2014, thirty two months after the project completion, and involved review of existing project documents and files, meetings with the executing agency and its collaborators, the project key personnels, the main stakeholders, and visits to relevant institutions and forest industries in Indonesia, Malaysia, and the Philippines.

The key stages of the evaluation included in-depth analysis of the project design using the ITTO Manual for project formulation (3rd edition) and the ITTO Manual for project monitoring, review, reporting and evaluation, as the framework with special attention to the problem tree and definition of the project elements, and assessment of project performance covering appropriateness of implementation process, achieved outputs and objectives, and impact as well as sustainability of the project.

3. Project facts

The project, stemmed from a few studies conducted in Indonesia, was urgently needed to help sustain wood-based industry which was experiencing the continuing shortfall in supply of Large Diameter Logs resources.

The SDL resources from natural forest or plantation forest is one of the solutions to the continuing bicomposite products, but the market and technology for bio-composite products should be learnt to find out which products are prospectously for future market, and the appropriate applied technology should be investigated for producing marketable products.

The specific objectives of the project were achieved through delivery of seven outputs for which 18 activities had been fully implemented within the sanctioned financial and time budget i.e. US \$ 865,163 and 49 months, including 13 months of extension without additional funding, respectively.

4. Findings, Lessons Learned

4.1 Findings

1. The problems addressed by the project were inadequately analyzed and the problem tree was not clearly identified leading to a weak project design.
2. Seven defined outputs had been delivered through the full execution of 18 activities identified and achieved the specific objectives which have contributed to achievement of the development objective.
3. The visits made to and discussions held with the primary beneficiaries in three countries indicated that the project has generated significant positive impacts to the development of SDL utilization technologies in bio-composite products;
4. Transfer of technology had been performed effectively through dissemination of the technical reports produced, conduct of the seminar and workshop attended by 124 participants, technical training of operators in UPM, and participated students' contributions.
5. The overall post-project situation that prevails is encouraging in terms of raised awareness of target beneficiaries on potential economic benefits of SDL in bio-composite products' utilization, strengthened policies and programme on forest plantation development and enhanced capacity of research institutions in bio-composite technologies developed under the project.
6. Some major unexpected effects and impacts of the project found were more SDL utilized in practice is from plantation forest or community forest instead of natural forest as targeted in original project document; and more wood industries participated in the project.
7. The project had been effectively implemented in compliance with the project agreement and ITTO rules and procedures and in a collaborative manner involving a multi-disciplinary group of research institutions and the primary beneficiaries with support of CFC/ITTO and Project Steering Committee (PSC).
8. Sustainability of the project is determined by its actual and potential contribution to intended primary beneficiaries, the forest industries and governments. Applicability of the technologies identified and introduced by the institutions is a strong incentive for the beneficiaries to technically, financially and politically support continuation and expansion of the activities from the project. The continued studies on wood properties and manufacturing technologies of bio-composite products from SDL resources, and improved communication between the primary beneficiaries could also enhance the sustainability of the project.
9. Overall, the project can be rated as successful in delivering its planned outputs and achieving its intended objectives judged using the indicators defined in the logical framework of the project and the impacts that have been generated by the project.

4.2 Lessons learned

a. Project identification and design

- 1) Diminishing logs supply from natural forest, logs diameter with 50 cm and up, resulting activated plantation forest by government and private as well. The research on physical and mechanical properties of some wood species with SDL from natural and plantation forests should be investigated to find out the appropriate tree species for biocomposite products. These wood species were intended for biocomposite products, but with some discussion with other stakeholders, the research of biocomposites products was focused on wood from plantation forest only, because SDL from natural forest has some restriction in regulation and also high cost of transportation.
- 2) The key problem to be identified is the most important in project identification. It needs to be addressed precisely through detailed analysis and to build coherence between project objectives, outcomes, outputs and activities, so as to formulate the logical framework. Some more outputs should be defined to cover all of the project research content.
- 3) In order to minimize adjustments to planned project activities in the course of project implementation, the participation of project beneficiaries in project identification and problem analysis is indispensable.
- 4) The difference of expertise and facilities of research institutions from different countries should have been identified during the project development stage, so as to arrange proper research contents, otherwise putting institutional safeguards in place to ensure equivalent roles involved in project implementation. The complicated situation should be foreseen about collaboration of research from different countries and government.

- b. Project implementation
- 5) Four countries (Indonesia, Malaysia, Philippines, and Papua New Guinea) were involved in the project; the contingency plan should be prepared for any complicated situations, such as coordination, research execution, administrative, and financial.
- 6) In order to assure the project's smooth implementation by collaborating agencies. The participated government or research institutions should endorse the project in the course of project implementation, to avoid any delay in project executing from the high variation of capabilities among different institutions.
- 7) Frequent communications and contacts should be kept among collaborating agencies. The rate of project progress should be informed timely in accordance with the term of reference by collaborating agencies to avoid any delay of project implementation.

5. Conclusions and recommendations

5.1 Conclusions

- 1) This evaluation found that the Executing Agency satisfactorily completed all outputs in 49 months through CFC/ITTO approved extension without additional funding. The project was implemented in an effective manner in full compliance with the project agreement and established ITTO rules and procedures; the required documents had been prepared in accordance with existing ITTO manuals and timely submitted to ITTO; and adequate management and monitoring of activities were critical to the success of this project.
- 2) The delays encountered by the project were due to reasons beyond the Executing Agency's control resulted from frequent and drastic organizational structural changes in a collaborating agency (PNG) which often involve shifting of the project personnel.
- 3) Technology transfer had been performed effectively through dissemination of the project outputs and publications, conduct of the workshop and seminar on SDL management and utilization for biocomposite products.
- 4) Several post project developments showed positive indications of sustained project outcomes in the longer term. Some positive policies issued in West Java Province (Indonesia) to ease the procedure of transportation of logs from plantation forest, and state-owned forest farm provided planting technologies to local communities. These developments encourage the progress of local plantation forest and wood industries. There is a new plywood enterprise constructed in west Java in which the project member directly participated with the production line design and in charge of manufacturing technology of plywood from local plantation forest.
- 5) Project implementation has strengthened the capacity of collaborating institutions through provision of basic facilities and competent professionals to carry out future studies in SDL utilization; and network between research institutions and wood industries had been well constructed through project activities.

5.2 Recommendations

For the Executing Agency

- 1) Recommendations to the Ministry of Forestry of Indonesia. Policies and regulations should be considered and developed for the collection and utilization of SDL from natural forest in bio-composite products, such as lowering timber taxation.
- 2) In formulating future similar projects, strict adherence by proponent to existing ITTO Manual on project formulation and full participation of the primary beneficiaries and policy makers must be assured in order to arrive at a sound and workable project design. The background and related policies should be analyzed and clearly understood, and it is better for the policy makers to participate.
- 3) In convincing the forest industries on the commercialization of SDL utilization, the cost analysis of bio-composite products from SDL resources should be conducted in close consultation with industries.
- 4) Maintain and strengthen communication with collaborating agencies should be enhanced across the network to promote the sustainability of the established SDL utilization technologies in each participating country.

- 5) Sharing achievement of project in a convenient way, such as put related technical reports, proceedings of workshop, publications etc. on the website of EA, and linked to ITTO website.
- 6) A follow-up project is recommended to continue the studies of bio-composite products' technology from SDL resources, covering: the analysis of chemical properties of related wood species; bonding quality of bio-composite products; optimization of manufacturing technologies of bio-composite products; and demonstration of optimized technology in production line for large scale enterprises.
- 7) Speed up the R&D of bio-composite product from SDL resources, it is advised to make use of successful experience of other countries.

For ITTO

- 8) Support the executing agency to dissemination the project results and related informations through ITTO website, such as technical reports, publications, and proceedings of international workshops, etc., so as to let more people or organizations benefited from the achievement of project.
- 9) Improve the management of complex multi-country projects. It is suggested that project steering committee meetings should be held in different participated countries in turn, so the related government or research institutions would emphasize the project's implementation.

ANNEX
The Management Response

On behalf of the project management, we would like to express our sincere gratitude to Mr. Emmanuel Ze Meka, the Executive Director of ITTO, Dr. Steven Johnson and Dr. Tetra Yanuariadi, the Assistant Director and the Projects Manager of Trade and Industry Division, Prof. Dr. Zhou Yongdong, Roger Bymolt, Staffs of Ministry of Forestry Republic of Indonesia, Prof. Edi Suhaimi Bakar, Dr. Dwigth Eusebio, all resource persons for the excellent contribution and support during the execution of the ex-post evaluation of the project CFC/ITTO/62 PD 40/00 Rev. 4 (1).

We have been thoroughly reviewed the ex-post evaluation report prepared by Prof. Zhou Yongdong. Our opinion regarding the report are as follows:

1. The report is classified as a well-written document, an excellent piece of professional work; it presents the findings in a clear, balanced and objective manner, draws meaningful conclusions consistent with the findings and makes realistic, useful and fruitful recommendations.
2. We agree with all the conclusions presented. According to our opinion, they are fully in agreement with our notes during the execution of the project.
3. We agree to Prof. Zhou recommendation to the Ministry of Forestry of Indonesia, that policies and regulations should be developed to support high efficient utilization of SDL from natural forest in bio-composite products instead of just leaving in site, such as reduce the forest fund (tax) etc. to decrease the cost for collecting SDL from natural forest by wood industries.
4. In formulating future similar projects, we are agree that policy makers and the primary beneficiaries should participate in proposal development and full participation in the project execution.
5. In convincing the related stakeholders on the commercialization of SDL utilization, the cost analysis of bio-composite products from SDL resources should be conducted in close consultation with industries and other related stakeholders. Therefore, further research on cost analysis of SDL utilization is required.
6. We agree to maintain and to strengthen communication with collaborating agencies and stakeholders to promote the sustainability of the established SDL utilization technologies in each participating country.
7. We agree to share the achievements of the project to all stakeholders, such as put related technical reports, proceedings of workshop, publications etc. in the ITTO website if ITTO agree to do so.
8. Technology transfer had been performed effectively through dissemination of the project outputs and publications, conduct of the workshop and seminar on SDL management and utilization for biocomposite products. However, we should not stop in this stage. We do hope ITTO would like to continue sponsoring USDL technology transfer activities through intensive publication, training, workshop, etc.
9. Project implementation has strengthened the capacity of collaborating institutions through provision of basic facilities and competent professionals to carry out future studies in plantation forest utilization; and network between research institutions and wood industries had been well constructed through project activities. There is a new plywood enterprise constructed in Cianjur Regency, West Java Province, Indonesia, which the project member master minded the production line design and in charge of manufacturing technology of plywood from local plantation forest.
10. We agree with Prof. Zhou Yongdong recommendation to continue the studies of bio-composite products' technology especially in optimization of manufacturing technologies, optimized technology should be demonstrated in production line (large scale) in enterprise level and cost analysis. To speed up the R&D of bio-composite product from SDL resources, it is advised to make use of successful experience of other countries, e.g. to conduct some study tours in project activities in the following projects.

In conclusion, we have no objection to the information presented in the Ex-Post Evaluation Report on ITTO Project CFC/ITTO/62 PD 40/00 Rev. 4 (1) "Utilization of small diameter logs from sustainable sources for bio-composite products".

Bogor, September 15, 2014

Prof. Yusuf Sudo Hadi
Project Coordinator

ITTO Project PD 334/05 Rev.2 (I)

**Demonstration and Application of
Production and Utilization Technologies for
Rattan Sustainable Development in the ASEAN Member Countries
(The Philippines)**

**EX-POST EVALUATION REPORT
[EXECUTIVE SUMMARY]**

Prepared for ITTO

by

Prof. Yu Yan

EXECUTIVE SUMMARY

1. Introduction

At their Forty-sixth Session, in November 2012, the Committee on Economic and Market Intelligence and the Committee on Forest Industry (CEM-CFI) decided that an ex-post evaluation of PD 334/05 Rev.2 (I) should be carried out to establish how well the project had served its purpose and to make recommendations for future action.

The ex-post evaluation was conducted from the 1st – 7th July, 2013, roughly 33 months after the closure of the project. The evaluation aims to provide an in-depth analysis of the project, which identifies what were the successful and unsuccessful outcomes, the reasons for these successes and failures, and the contribution ITTO PD 334/05 Rev. 2 (I) made towards achieving ITTO's Objective 2000. Based on the evaluation, the author summarized the lessons learned from implementing the project, suggesting how these experiences could be used to improve the outcomes of similar projects in the future.

2. The Project

ITTO PD 334/05 Rev. 2 (I) "Demonstration and application of production and utilization technologies for rattan sustainable development in the ASEAN member countries" was approved during the 38th Session of the International Tropical Timber Council, held in Brazzaville, Congo, from the 18th-22nd June, 2005.

The project, which was implemented from April 2006 to November 2010 by the Ecosystems Research and Development Bureau (ERDB), based in Laguna, Philippines, aimed to strengthen ASEAN collaboration on sustainable management and utilization of the region's rattan resources. This was to be achieved through field-applied demonstration of rattan production and utilization technologies, with the goal of improving the socio-economic status of local rattan producer communities. The project specifically aimed to: (1) apply production and utilization technologies to set up and manage rattan demonstration plots at the village level, as well as promote rattan processing for the sustainable development of rattan in ASEAN member countries; and (2) establish relevant technologies on production, utilization and socio-economic aspects of rattan and disseminate them through a newly created ASEAN Rattan Centre.

The project was initially scheduled to last 48 months, with a total budget of USD899,873, of which ITTO contributed USD629,873, with the Government of the Philippines providing the rest of the funding. The final project lasted for 54 months, with one approved 6-month no-cost extension.

The main tangible project outputs were: (1) twenty trainings conducted on rattan production and utilization technologies in ASEAN member countries (Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand and Vietnam), with 500 participants and five training modules prepared and distributed during the different workshops; (2) eight small research projects completed on topics and relevant results were presented in the Project Technical Reports and in a regional rattan conference; (3) 222 hectares of rattan plantation plots established and maintained (versus 200 hectares as originally planned); (4) seven Rattan Newsletter issues published; (5) a Regional Conference on production and utilization technologies for rattan (an additional output from the original proposal) held in the Philippines from the 29th August to 1st September, 2010, where two publications were launched entitled "A Field Guide to Philippine Rattans", and "The ASEAN Rattans"; and (6) a project website (www.aseanrattan.com) and database on rattans launched.

3. Findings

- (1) In general, the evaluation found that the project's main success was attributable to good problem definition at the start of the project, as well as selection of relevant stakeholders, who were well consulted during formulation of the project design. The concept for this project was borne out of suggestions raised at an Experts' Consultation on Rattan Development held in Rome in December 2000, which emphasized the economic, socio-cultural and ecological importance of rattan. Based on this consultation, ERDB conducted a pre-project on rattan [Pre-project Document 51/02 Rev. 1 (I)] with funding from ITTO. As a result of this project, a Regional Conference on Sustainable Development of Rattan in Asia was held in Manila, Philippines in 2004, where representatives or contact persons (CPs) from each ASEAN member country identified their own countries technology

gaps and needs with regards to rattan production, processing and utilization. Once gaps/issues had been identified, a project framework was formed. Furthermore, each participating country was able to select project beneficiaries based on this framework. Therefore, the formulation of the project ensured that it had legitimacy across the region, with clearly defined, achievable and mutually agreed objectives and management structures enabling for efficient project implementation.

This project aimed to strengthen ASEAN collaboration and reduce poverty at the community level by establishing a network that supports and prioritizes the urgent development needs and concerns of the rattan industry. To achieve the project's development objectives, five work components, namely training, pilot site demonstration, research, networking, and database development, were identified and included in the implementation framework.

- (2) For the training component, although only twelve training sessions were included in the initial project design, a total of twenty trainings on production and utilization of rattan (nine on production technologies and eleven on utilization technologies respectively) were actually performed in six ASEAN countries (excluding Thailand and Malaysia). The trainings reached 500 participants composed of farmers, researchers, and manufacturers (Output 1.1). The success in exceeding the targeted number of trainings can be attributed to the strong networking linkages established by the project across the region, which were allied to an excellently organized Project Management Team (PMT). These training courses were performed by rattan experts from university and research institutes in the Philippines with extensive experience on rattan research and development. Five training modules and technology guides were prepared by these experts and presented in English or local languages to enhance dissemination (Output 1.2). The project also hosted a seven-day Regional Training Program on Rattan Taxonomy and Resource Inventory in Bangkok, Thailand from the 7th - 13th Sep, 2008, in collaboration with the ASEAN Centre for Biodiversity (ACB), the Asia Pacific Association of Forestry Research Institutions (APAFRI), and DNP. This training event, which was one of the major activities of the project, had an excellent attendance, with 17 participants coming from the eight (8) ASEAN member countries present.
- (3) The project also established and maintained over 222 hectares (the planned area in the project document was 200 hectares) of rattan pilot plantations in seven ASEAN countries, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand and Vietnam (Output 1.3). The additionally 22 hectares were incorporated from a related research activity conducted in the Philippines. Importantly, local communities, whom were trained on production and utilization of rattan prior to plantation establishment, were directly involved in setting up the demonstration plots. Although the land ownership of these pilot plantations belongs to the governments of each participating country, the local communities, whom are responsible for their maintenance and management, have clearly defined tenure and access user rights to the plots. Therefore, it is anticipated that communities will obtain direct and continuous incomes from the plots after plantations reach maturity.
- (4) Besides the training and demonstration components that are generally indispensable in an ITTO project, a small grant research program was also integrated as part of this project. A relatively fair and reasonable procedure for proposal selection, review and evaluation was designed by the PMT, based on which a call for research proposals was issued and opened to all potential applicants in ASEAN member countries. Twenty-eight research proposals from four ASEAN countries were reviewed and eight of them received funding. Although the selected research topics were highly relevant to the research gaps identified during the 2004 Regional Rattan Conference, their actual contribution to the sustainable development of the ASEAN rattan industries hard to evaluate as no full technical reports or formal publications in academic journals were available at the time of this evaluation. However, several significant results and outputs from the studies summarized in the Project Technical Reports suggest these research studies did yield important results for the sustainable development of the regional rattan sector.
- (5) As this project involved eight countries, the networking component was also especially important for achieving the desired goals and objectives. The network was not only a vital link among the various project components, but also a bridge for coordination, communication and collaboration across the eight countries. A large number of wide-ranging network activities were successfully conducted during the project, both at the local, national and regional level. These included regular communication with ASEAN contact persons, annual project meetings, preparation and circulation of a project newsletter (RATTANewsletter), attendance at conference/symposia/meetings, organization of meetings and conferences, creation of an ITTO group discussion and project rattan

museum, and conduct of study tours. Within the project period, networking activities helped to facilitate more collaborative cooperation on rattan production and utilization at the regional level.

- (6) An innovative measure to ensure the sustainability of the network after completion of the project was the establishment of a data/information network on rattan in the ASEAN region (www.aseanrattan.org). This now allows network participants to gain access information, while providing a continuous means for future exchange at national, regional and international levels. The website features the main accomplishments of the project together with other important information on rattan, which is available for wider access and use by the public. Furthermore, an on-line database of rattans found in Southeast Asia was created and launched during the Regional Rattan Conference in 2010. The database includes information of 601 species of rattan, consisting of scientific names, local names in ASEAN countries, distinguishing characters, brief descriptions on habitat, elevation, distribution, characteristics of stem, leaves, inflorescence, fruits and seeds, uses, illustrations and pictures. From 2008-2010, a total of 126,331 web visitors accessed the website, with 12,612 pages requested according to the Project Technical Report. However, at present, this website is inaccessible. The international consultant has tried to visit the website dozens of times both in the Philippines and in China, but was always unsuccessful. The PMT attributed this problem to the terrible internet service in ERDB.
- (7) At 33 months after project completion, the rattan demonstration plantation in the Philippines was found to be well maintained and managed. The rattans in the plantation located in Barangay San Jose, Lupi Camarines Sur, Bicol Natural Park (Protected Area) have grown very well. The villagers, who were interviewed still showed enthusiasm for rattan plantations and were starting to get incomes from selling rattan seedlings while they wait a further 5-8 years for canes to reach mature harvestable age. Due to the time limitation of this evaluation, the demonstration sites located in the other six ASEAN countries were not visited. However, interviews were conducted with members of the PMT in ERDB, who all reported that the other rattan plantations were being well managed by local farmers or government agencies.
- (8) The sustainability of the project is evident from the following facts:
 - Financial support in the amount of USD 2000/per year was provided by ERDB for monitoring the growth of rattan in the established plantations in Philippines. This activity should further improve the knowledge on rattan sustainable management and result in higher productivity;
 - For the pilot demonstration in BNP, Philippines, a resolution regarding the mainstreaming of the pilot demonstration into the programs of PAMB was formulated during the Protected Area Management Board (PAMB) meeting in March 2010. This resolution has already been signed by the Regional Executive Director of DENR Region 5. With technical assistance for the PMT, Camarines Norte State College in the Philippines has now also established its own two hectare rattan research plantation for research purpose on forest land located within its campus. The rattan plantations located in other participating countries are also reported to be well managed as most of them are located in protected areas and, or, on the experimental forests plots of collaborating agencies.
 - A follow-up project proposal for the continued industrial development and marketing of rattan has been submitted to ITTO by ERDB. This proposed project aims to developing rattan-based enterprises to efficiently utilize rattans for livelihood improvement at community level in ASEAN countries.
 - The peoples' organization in the Barangay San Jose are now gaining its first income of 2000 USD by selling about 20000 rattan seedlings in 2013. More purchases from individuals or government agencies are expected as the Philippines government includes rattan species in the National Greening Program for the first time;
 - The project website and rattan database containing project reports, books, proceedings and digital outputs are being maintained in ERDB indicating the continuity of information dissemination. ERDB are now becoming a center of knowledge for rattan propagation and extension services, with about 300 people from universities, government agencies and enterprises, visiting the institution over the last three years according to the records in a notebook for guest visiting.
 - The expertise of several key project participants is improved. They will possibly grow to the leading figures in the rattan research and development field.

- (9) The Project was extended from 31 March 2010 to November 1, 2010 under the approval of ITTO with no additional cost to give ample time to some participating countries to complete their end of project reports. An examination of the project documents and face-to-face interviews with the members of PMT revealed that the delays in completing the final project outputs were partly due to factors beyond the control of the ERDB. For example, political unrest in Myanmar and Thailand during the initial stage of the project resulted in the delay of funds being transferred to these countries. The weak financial institutions in Myanmar also contributed to the difficulty in processing financial assistance for project implementation. The inactive involvement of Cambodian CP at a later, critical period of the project also meant that no final report was submitted for Cambodia.

4. Lessons learned

- For a complicated project, which will involve several countries, face-to-face communication and discussion was necessary and highly important for correctly identifying key national and regional problems that needed to be addressed, as well as for selecting suitable implementing agencies in each participating country.
- A comprehensive project design must sufficiently define all internal and external risks to the project and identify contingencies to ensure that the outputs are achieved on time. This includes making sure to develop activities, outputs and expected outcomes that while being ambitious are also realistic and achievable with the resources available.
- The involvement of local communities in the project as active participants and direct beneficiaries plays a crucial role in the successful implementation of training and demonstration components of the project. This is also fundamental to ensuring long-term sustainability and subsequent impact after completion of the project.
- The project should be designed in such a way that minor modification or adjustment could be allowed, without affecting the overall framework and specific objectives.
- Linking with local and international agencies helps considerably to achieve a project's planned activities, while also supporting sustainability.
- Heads of implementing agencies should be required to have direct participation and active intervention in managing the project.
- A sustainability plan for the project must be prepared before the project ends, and ideally during the formulation process. This should include a satisfactory exit strategy that ensures targeted beneficiaries have the required capacity and resources to continue and up-scale project activities after the completion of funding. Furthermore, the plan must include not only one component of the project, but all components, covering all participating countries.
- The implementing agency in the participating countries should be given autonomy to select local beneficiaries of the project, using mutually agreed criteria developed during the project formulation process.

5. Conclusions

5.1 Conclusions

- (1) The project PD 334/05 Rev. 2 (I) satisfactorily achieved its development objective and two specific objectives. Due to the adequate identification of the problem to be addressed and the relevant participating stakeholder, this project was well-designed with five interconnected components. Of the five components of the project, the training and demonstration components produced many more outputs than originally planned. The networking component also achieved its objective with an additional important output being the Regional Rattan Conference conducted in Makati City, Philippines in August 2010. This conference might form a strong basis for the formulation of a new ITTO project. The research component dealt with the research gaps that were identified during the 2004 Regional Rattan Conference, but its actual contributions to the sustainable development of rattan industry in ASEAN is hard to be evaluated as no full technical reports or formal publications in academic journals are currently available. Furthermore, eight research topics are too many for a demonstration and application project. The database component was designed to be part of an information center of rattan that can function at regionally and even internationally. As no such previous database was available this could potentially be very important for the sustainable development of rattan industry. However the terrible accessibility of the website will seriously damage the reputation of this information platform if the internet service and database maintenance are not improved.

- (2) The delays encountered by the project were due partly to reasons beyond the Executing Agency's control, such as the political disorders in Myanmar and Thailand and the weak financial institutions in Myanmar. The inactive involvement of the Cambodian CP at the later period of the project was the most important reason.
- (3) At 33 months after project closure, the sustainability of project outcomes and emerging impacts were evidenced by several indicators. Firstly, ERDB are providing continued financial support of USD 2000/per year to for monitoring and evaluation of the growth of rattan in the established pilot plantations in Philippines. Secondly local communities in some pilot sites, notably in the Philippines, are now starting to earn additional income from selling of rattan seedlings. Thirdly, the project website and rattan database containing project reports, books, proceedings and digital outputs are being maintained in ERDB indicating the continuity of information dissemination. ERDB is now becoming a recognized center of knowledge for rattan propagation and extension service provision, with roughly 300 rattan-related stakeholders from universities, government agencies and enterprises visiting the institution within the last three years. Finally, a follow-up project to commercialize and market rattan across the region has be developed and submitted to ITTO by ERDB, which aims to develop rattan-based enterprises that utilize raw materials from the established rattan plantations.
- (4) In the future, it is vital that ERDB continues to strengthen collaboration with the project's implementing agencies from other participating countries, as well as with international organizations such as INBAR, FAO and WWF. Such an approach could help to contribute towards a global strategy for sustainable rattan sector development as part of an integrated approach to sustainable forest management.

5.2 Recommendations

For the Executing Agency

- Secure funding to further improve the quality of project-developed training manuals and conduct regular follow-up trainings in the participating countries to ensure beneficiaries gain from the most recent state of the art technologies on rattan production and utilization;
- Continue to monitor the growth and management of the established rattan plantations and provide trainings on harvesting technologies that could improve the quality of rattan canes and ensure the economic sustainability of these plantations. Furthermore, ERDB should also publish results on the pilot sites in academic and open access publications to promote wider dissemination and uptake of best practices;
- Maintain and even strengthen the communication with collaborating agencies across the network to promote the sustainability of the established rattan demonstration plantations in each participating country;
- Consult with relevant government agencies to advocate for and promote supportive policies, which could promote the sustainability of rattan resources in the Philippines. In addition, examples of successful policies should be shared across the network;
- Formulate a grading regulation or standard for rattan poles and by-products applicable to all ASEAN member countries;
- Enhance financial and human resource support to research and development of rattan production and utilization within ERDB;
- The project network of various international and local institutions, government agencies, and rattan manufacturers should be maintained and, if possible, expanded;
- The quality of the rattan database and the accessibility of project website should be significantly improved. Furthermore, more effort should be made to make sure information is of a practical nature, relevant for commercial utilization of rattan resources;
- The project website and database should be linked to ITTO's website to get more access.
- The management framework and experience of this project should be extended to other similar international projects.

For ITTO

- In future demonstration and applied research projects, research activities, especially basic research, should be minimized so as to increase the availability of funds for demonstration, training and transfer of technology activities;
- Including a visiting scholar program as part of demonstration and capacity building activities, could help to strengthen networks and improve the sustainability of future projects;
- To improve management of complex multi-country projects, it is suggested that project steering committee meetings should take place twice rather than once per year;
- More considerations should be given to the political stability of the executing and collaborating agencies during the formulation of a project. The agencies, including the collaborating agencies which are responsible for the project delay should be more strictly examined if they want to apply projects from ITTO.
- The evaluated project actually mainly focused on the demonstration and application of rattan production, which will contribute to an improved supply of rattan raw materials in the participating countries. Therefore, a follow-up project on the demonstration and application of rattan utilization that has been submitted to ITTO by ERDB should be under full consideration by ITTO.

ANNEX
The Management Response

The Ecosystems Research and Development Bureau (ERDB) is truly grateful to ITTO for funding this project, which has helped to strengthen ASEAN collaboration on the promotion of sustainable rattan resource management. Through demonstration and application of rattan production and utilization technologies, the project has the potential to improve and enhance the socio-economic status of poor, rattan producing communities across the region. ERDB also acknowledges all the stakeholders involved in the project. Their cooperation and contributions have been fundamental to the success of this project.

ERDB is in agreement with the findings and conclusions drawn from this ex-post evaluation, and sincerely appreciates the shared lessons and recommendations.

Based on the lessons learned from the implementation of the project, ERDB will further improve the quality of its training manuals developed during the project and try our best to conduct more training in participating countries to update our stakeholders on the most recent state of the art technologies related to rattan production and utilization.

ERDB will continue to monitor the growth and management of the established rattan plantations and provide trainings on the harvesting technologies that could improve the quality of rattan canes, thus ensuring the economic sustainability of the sites.

ERDB will also consult with relevant government agencies to promote new policies, which could improve the sustainability of rattan resources in the Philippines.

Furthermore, as soon as possible, ERDB will formulate a grading regulation or standard for rattan poles and by-products, which could be applied to all ASEAN member countries

The quality of the rattan database and the accessibility of the project website will be maintained and improved by ERDB to make it the most valuable information center for all the individuals, agencies and enterprises, who are interested in the development of the rattan industry.

Dr. Aida Lapis

Ex-Project Coordinator, PD 334/05 Rev.2 (I)
Ecosystems Research and Development Bureau (ERDB)

ITTO Project PD 523/08 Rev.1 (I)

**Operational Strategies for the Promotion of Efficient Utilization of
Rubber Wood from Sustainable Source in Indonesia
(Indonesia)**

**EX-POST EVALUATION REPORT
[EXECUTIVE SUMMARY]**

Prepared for ITTO

by

Mr. Amha bin Buang

EXECUTIVE SUMMARY

1. INTRODUCTION

The selection of the project for ex-post evaluation was decided by the CFI at its Forty-seventh Session in November 2013 to establish how well it has served its purpose and draw up recommendations for future action.

2. EVALUATION SCOPE, FOCUS AND APPROACH

The ex-post evaluation was conducted in accordance with its terms of reference covering a review of relevant documents and information and a work programme to Indonesia.

3. PROJECT FACTS

The key problem addressed by the project was the very low utilization rate of rubberwood in Indonesia. The SO of the project was to promote the utilization of rubberwood from sustainable sources that will contribute to the realization of its DO of lessening the wood raw material supply problem facing the national forest industry. This is to be pursued through 5 project outputs, namely (i) increased interest in the utilization of rubberwood owned by big companies, (ii) improved incentives for and capacity in the utilization of rubberwood from smallholdings, (iii) revised and enhanced government policy governing rubberwood resource utilization, (iv) increased investment in rubberwood utilization, and (v) appropriate technologies for the utilization of rubberwood from smallholdings are available.

4. FINDINGS, LESSONS LEARNED

The project was implemented uninterruptedly and completed within its approved duration and without any delay, extension of duration or additional ITTO and counterpart funding. It had been implemented in full compliance with the relevant ITTO rules and procedures as well as in the context of contributing towards the achievement of relevant ITTA Objectives and ITTO Strategic Action Plans and following up on the recommendations of the ITTO Technical Mission to Indonesia in 2001. It had also been implemented in general conformity with the relevant laws, rules, regulations and procedures of the GOI.

The strongest attribute of the project is the high level of efficiency in its implementation, brought about by a combination of several factors including the benefits from the outcome of PPD 80/30 Rev. 2 (I); a project design which is basically sound; appropriate implementation strategy; active involvement and support from project stakeholders and target beneficiaries; compact, competent and proactive PMT; close cooperation between EA and CA; as well as efficient and responsible financial management.

The implementation of the project activities has contributed in some measure to the achievement of the planned outputs. However, there are gaps in the attainment of some of the outputs even on the basis of the revised indicators, casting some doubt as to whether all planned outputs have in fact been achieved in full. The gaps in the attainment of some of the project outputs have some bearing on the extent to which the SO has been achieved. Furthermore, the performance of the project in relation to its revised outcome indicators has yielded mixed outcomes, making it appear that the SO of the project has not been achieved in full. There is hardly any information and analysis that can be used as a basis to establish with certainty that the implementation of the project will contribute towards the attainment of its DO.

In spite of the gaps in the achievement of some of the outputs and objectives of the project, its effects and impact are quite considerable, wide ranging and mixed particularly in relation to the big rubber companies, rubber smallholders, policy review and enhancement, investment and appropriate technologies for rubberwood utilization. It has been implemented without any significant adverse impact on the environment while its impact on the local communities which constitute one of the key project stakeholders and target beneficiaries is salutary.

The project has generated great momentum, interest, outputs and outcomes whose relevance and usefulness extend far beyond the completion of its implementation. Allocation of resources and arrangements for appropriate follow-up on the project results are required in order to extend the sustainability of the project.

The project design is basically sound but its deficiency lies in the lack of clarity of its SO and some of its outputs as well as its output and outcome indicators, its very broad scope, the lack of validity of some of its assumptions and risks which were not adequately anticipated. In spite of the achievements and shortcomings of the project, the need to meet the challenges of significantly increasing rubberwood utilization in Indonesia remains relevant and urgent.

Many lessons could be drawn from the findings on the implementation of the project, the salient of which include the following:

- i) For a project involving complex social, economic, and political issues, and without complete data and information, the prior implementation of a pre-project is extremely appropriate in providing inputs and basis for the sound formulation of the project.
- ii) Efficiency in the implementation of a project is a result of a combination of factors including sound project design; appropriate implementation strategy; active involvement and support from stakeholders and target beneficiaries; compact, competent, and proactive PMT, close cooperation between EA and CA as well as efficient and responsible financial management.
- iii) Early involvement and participation of project stakeholders and beneficiaries facilitates commitment, support, attachment, and ownership which contribute to the smooth implementation of a project.
- iv) The full and excellent compilation of all project reports is extremely helpful to the conduct of the ex-post evaluation.
- v) The implementation of all project activities does not automatically result in the full achievement of its outputs and objectives.
- vi) Clarity of objectives, outputs and the corresponding impact, outcome, and output indicators is critical in ensuring and measuring the extent to which the objectives and outputs are achieved.
- vii) In implementing and evaluating a project of regional nature, there is the need to be perceptive and sensitive to the differences and peculiarities amongst the different localities within the geographical scope of the project.
- viii) The ability to adapt to unexpected developments, externalities and risks is crucial in ensuring the smooth implementation of a project.
- ix) Appropriate follow-up after project completion is essential to prolong the sustainability of a project and to minimise wastage and loss of momentum.

5. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The project was implemented smoothly and completed on schedule, without any delay or additional funding, and in conformity with the rules and procedures of ITTO and GOI. Indeed, efficiency in implementation is the strongest attribute of the project.
2. The implementation of the project has contributed in some measure to the achievement of its planned outputs and objectives. However, its effectiveness is affected by the gaps in the attainment of some of its outputs and objectives, casting some doubt as to whether these have been achieved in full.
3. In spite of the gaps in achievement, the effects and impact of the project are quite considerable and wide-ranging, albeit mixed.
4. Despite its shortcomings, the project has generated great momentum, awareness, interest, outputs, and outcomes whose relevance and usefulness extend far beyond the completion of its implementation. Appropriate follow-up is required in order to further extend the sustainability of the project.

5. The project has been able to secure continuing and active participation of its stakeholders and target beneficiaries throughout its implementation, although the domestic wood processing industry ought to have been assigned a more prominent and proactive role.
6. The project design is basically sound but its deficiency lies in the lack of clarity of its SO and some of its outputs as well as its output and outcome indicators, its very broad scope, the lack of validity of some of its assumptions and risks which were not adequately anticipated.
7. In spite of the achievements and shortcomings of the project, the need to meet the challenges of significantly increasing rubberwood utilization in Indonesia remains relevant and urgent.

Recommendations

1. The experience and lessons learned from the efficient implementation of the project should be referenced and shared in the context of the implementation of other projects in Indonesia and elsewhere.
2. The excellently produced project reports containing rich and relevant information on rubberwood utilization should be put to good use as inputs and elements for the formulation of appropriate policies and strategies for promoting rubberwood utilization in Indonesia.
3. Appropriate monitoring should be carried out concerning the actual follow-up being taken by local governments on the list of incentives needed by smallholders to undertake replanting as drawn up under the project.
4. Follow-up surveys on the rubber growing stock in the smallholder sub-sector should be conducted carefully and scientifically to ensure the accuracy and validity of the data and to facilitate the finalization of the draft Inpres developed under the project.
5. Appropriate follow-up should be undertaken to resume the updating and refinement of the project website by ISWA.
6. It is critically important that all information and baseline data of relevance to rubberwood utilization generated under this project be maintained, updated, expanded and refined to be used as the basis for further planning and assessment of the progress in promoting rubberwood utilization in Indonesia.
7. The agroforestry models should be regularly monitored throughout their economic life-span by MOF and MOA as a long-term experiment on motivating smallholders to replant on time. Those who benefited from the various trainings conducted under the project should be periodically contacted to ascertain the extent to which their acquired skills and knowledge have been put to actual practice and to be called up for follow-up training to refresh, reinforce, and expand their knowledge and skills in rubberwood utilization.
8. A suitable home should quickly be found by the GOI for the multi-ripper sawing machine to be used for training purposes by an R&D institution before the expiry of the machine's life-span. In the event that this is not possible, it is recommended that the machine be donated to ISWA for the purpose of training its members.
9. Efforts to promote rubberwood utilization in Indonesia should be continued in earnest, building upon the achievements of the project and addressing its shortcomings. In this connection, a more focussed approach may be considered with emphasis on the smallholder sub-sector, the domestic wood processing industry, the formulation of a national policy on rubberwood utilization and the selection of rubber as one of the species to be used for the development of forest plantations in Indonesia by MOF.

ANNEX
The Management Response

We have thoroughly reviewed the above mentioned report and found that it is a well-written document, an excellent piece of professional work; it presents the findings in a clear, balanced and objective manner, draws meaningful conclusions consistent with the findings and makes realistic, useful and challenging recommendations. On these notes, we would like to express our sincere appreciation to the Consultant, Mr. Amha Bin Buang, for his excellent competence in collecting and digesting the myriad information on the project in a short time period and present the information in the report in a professional fashion. We would also like to convey our sincere thanks to all parties as well as individuals that have contributed in one way or another to the successful implementation of the ex-post evaluation.

Our views on the report as summarized above have been based on a deep examination of particular elements of the report as highlighted below:

- i. On the findings presented, we noted that:
 - They are fully in agreement with the results of field observations and the discussions held at different levels which also documented by the attending project staffs
 - The gaps in the attainment identified in the report, especially of the outputs and specific objective, are justifiable and not contradictory with the completion report of the project
 - The limited actual involvement of smallholders in rubberwood utilization identified provides useful and strong signal on needed follow up actions by the government
 - The failure of the project to realize investment during the project duration is admissible and points out to the need for implementation of improved policy on incentives for investment
 - On project sustainability, resolving the problems in allocation of resources and arrangement for appropriate follow up actions are the homework of concerned government institutions that has to be accomplished in due time by the Ministries of Forestry and Agriculture
 - On project formulation and design, limiting scope of the project could have been more realistic and resulted in greater effect and impact, is a lesson that has to be learned on in future project formulation.
- ii. On the conclusions drawn, we noted that they are consistent with the findings as elaborated in the report. The message sent by the Consultant that “to meet the challenges of significantly increasing rubberwood utilization in Indonesia remains relevant and urgent” is highly appreciable, useful and motivating.
- iii. On the recommendations made, we noted that they are truly relevant, useful and challenging for the promotion of rubberwood industry in Indonesia, especially as regard, among others:
 - Monitoring of follow up actions by local governments on effecting the incentives needed by smallholders for rubber replanting
 - Conduct of rubberwood growing stock survey using scientifically sound methodology
 - Periodical contact with the project trainees to monitor usefulness of the skills acquired
 - Continued earnest efforts to promote rubberwood utilization built on findings of the project.

In conclusion, we have no objection to the information on Project PD 523/08 Rev.1 (I) presented in the ex-post evaluation report.

Jakarta, September 2014

Dr. Dwi Sudharto
Director of Processing & Marketing
of Forest Products, Ministry of Forestry