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REPORT ON COMPLETED PROJECTS AND PRE-PROJECTS

IN THE FIELD OF REFORESTATION AND FOREST MANAGEMENT

REPORT ON COMPLETED PROJECTS* AND PRE-PROJECTS IN THE FIELD OF REFORESTATION AND FOREST MANAGEMENT

- **COMPLETED PROJECTS**

(1) PD 197/03 Rev.2 (F) Support for the Implementation of a Sustainable Forest Development Master Plan in Eco-floristic Area IV, Togo

Budget and Funding Sources:

Total Budget:			US$	445,483
ITTO Budget:			US$	317,093
Government of Japan:	US$	287,093		
Government of Norway:	US$	30,000		
Government of Togo:			US$	128,390

Implementing Agency: Department for the Control and Protection of Flora Utilization (DPCEF)

Session of Approval: ITTC Session XXXV, November 2003, Yokohama, Japan

Starting Date and Duration: October 2004 / 36 months

I. Introduction

The 36-month project was approved by the Council at its Thirty-fifth Session in November 2003 in Yokohama, Japan, and fully funded at the same Session by the Government of Japan and Norway. The Agreement regulating the implementation of the project was signed on 13 July 2004. The first installment of the ITTO funds was released in October 2004. No project extension was requested by the Executing Agency at the end of the formal project implementation period on 08 October 2007. As an acceptable version of the project completion report was received in January 2010, the project operation period had lasted 63 months instead of 36 initially designed by the implementing agency (DPCEF). However, the project final financial audit report was submitted in March 2014 by the Executing Agency, allowing this project to be documented as completed during the 48th CRF Session.

II. Project Objective

The aim of this project was to increase the potential of timber resources in Togo through the restoration of the national forest cover. Specifically, the project intended to support the implementation of a sustainable forest development master plan in the Eco-Floristic Area IV, in Togo.

III. Project Achievements and Outputs

a) Achievement of outputs

The two expected project outputs were achieved through the implementation of the following main activities/actions:

- 128 copies of the sustainable forest development master plan of the Eco-Floristic Area IV were distributed and explained to the representatives of key stakeholders during the sensitization campaigns carried during the project implementation;
- Local development committees, for the follow-up of the implementation of the sustainable forest development master plan of the Eco-Floristic Area IV, were set-up in prefectures for the coordination and consultation process among key stakeholders operating in that ecological area of Togo;
- Capacity building of representatives of key stakeholders on the operationalization of main steps of the sustainable forest development master plan of the Eco-Floristic Area IV had contributed to train 123 persons on the seedlings production and the establishment and maintenance of nurseries. These trained

***** Including financial audit

persons contributed to establish and manage 45 village nurseries, as part of associations of women, schools and churches in the Prefectures of Agou-nyogbo et Kpélé-Elé;

- 47 persons were trained on different models of silviculture operations/treatments in relation to the establishment of forest plantations combining *Tectona grandis* with indigenous species (*Terminalia spp., Khaya spp., Afzelia spp.* and *Cordia spp.*); and
- The project implementation, which was aiming at building capacity of key stakeholders on techniques ranging from seedling production to forest management through tree planting and silvicultural operations, exceeded the target of 1500 ha of industrial timber plantations through the following main achievements: 1075 hectares of Teak plantations were demarcated and managed by local stakeholders (villagers, private sector, churches and schools), 164 ha of Missahohoe natural forests were enriched by local development committees with indigenous species (*Terminalia spp., Khaya spp., Afzelia spp.* and *Cordia spp.*), 474,94 ha of agroforestry plantations had been established by local commununities mixing Teak with indigenous species (*Terminalia spp., Khaya spp., Afzelia spp.* and/or *Cordia spp.*);

b) Achievement of objectives

The objective of this project was to maintain the forest resources of Eco-floristic Area IV through forestry programmes aimed at the protection and rehabilitation of forests and the sustainable and participatory management of the area's forest heritage, in accordance with the master plan developed for this target area as a result of different studies carried out under the pre-project PPD 11/00 Rev.2 (F). The project intended to include programmes and measures aimed at the rehabilitation and sound management of forest resources by local communities and other stakeholders (schools, churches, private sector, etc.). It emphasized the supervision, training and raising awareness among local communities by empowering them to safeguard the environment of forests in the Eco-floristic Area IV of Togo, as well as to enhance the capacity of production of tropical timber and other products.

The training on participatory and sustainable forest management and rehabilitation techniques were given to local communities, NGOs and other stakeholders (schools, churches, private sector, etc.), in order to enhance their capacity in rehabilitation and forest management activities for industrial timber production. The institutional aspects of the master plan had been consolidated through the establishment of local development committees in the Eco-floristic Area IV of Togo.

IV. Outcomes and Impacts

The main project outcomes and impacts, in relation to the expected outputs and associated activities, can be summarized as follows:

- The operational capacity of the different stakeholders had been enhanced through training programmes dealing with techniques ranging from seedling production to forest management through tree planting and silvilcuture operations/treatments;
- Awareness of key stakeholders, including local communities, on the importance of sustainable forest management concepts, had been ensured in order to contribute to stabilizing forest ecosystems in the Eco-floristic Area IV of Togo as well as to providing some livelihood to stakeholders through the taungya agroforestry system which was promoted by this project;
- Forest cover had increased through forest conservation techniques, timber plantations establishment, and silviculture enrichment techniques in the natural production forest of Missahoe Forest Reserve. The project achievements could be replicated in other Eco-floristic areas of Togo;
- Establishment of an adequate institutional framework for monitoring the master plan implementation through local development committees (LDC) in prefectures covering the Eco-floristic Area IV of Togo. These LDC contributed to better collaboration and consultation among key stakeholders, which led to get the main project achievements; and
- The socio-economic and environmental impacts, due to the increase of forest cover derived from the rehabilitation and management of residual natural forests and the establishment of forest plantations, started being visible and evident. However, it was too early, at the project completion, to quantify the real impacts in the project target area and in other Eco-floristic Areas of Togo.

V. Lessons learnt and sustainability

5.1 Lessons learnt

The involvement of stakeholders right from the conception phase of the project, during the implementation of the pre-project PPD 11/00 Rev.2 (F) which led to the development of this project,

contributed to define their roles and responsibilities in forest management and rehabilitation process. This was very crucial for the success of the project, although it was a time consuming process. That's why the duration of the project implementation lasted 63 months instead of 36 months initially planned by the implementing agency. The use of local/native languages, during the sensitization campaigns, had facilitated the communication with and among key stakeholders, in particular with local communities, for a common understanding of the objective and aim of the project. This contributed to facilitating the involvement of local communities in the implementation of some project activities in close collaboration with other stakeholders, although their adherence was slow to get due to the critical issue of land tenure which was the key reason of their lack of confidence to the project. The land tenure issue was already identified as critical during the implementation of the pre-project PPD 11/00 Rev.2 (F) and it is was subject to special attention during the project implementation.

5.2 Project sustainability

The project has achieved significant success in the Eco-floristic Area IV and its achievements could be replicated in other Eco-floristic Areas of Togo. More specifically, the project fulfilled the responsibility of sustainability as follows:

a) Institutional sustainability

Institutional sustainability was pursued through the establishment local development committees (LDCs) in prefectures covering the Eco-floristic Area IV of Togo which had mainly included representatives of key stakeholders: local government institutions, associations of women, NGO, schools, churches, agriculture extension services, etc. These LDCs were used as platform for consultation among stakeholders and also for getting support for the implementation of the sustainable forest development master plan of the Eco-Floristic Area IV, in Togo. These LDCs had constituted an assurance to achieve the expected project outputs and would continue to be useful to sustain key project achievements and outcomes, in collaboration with the appropriate directorates and services of the Ministry of Environment and Forest Resources of Togo.

b) Socio-economic / financial sustainability

The forest management and forest rehabilitation interventions by the project beneficiaries included the planting of perennial economic species such as coffee and cocoa in addition to tree species. Their interventions also included the planting of annual crops (maize, plantain, cassava, bean, etc.) within the framework of the taungya agroforestry scheme in the Eco-floristic Area IV of Togo. The products of these agriculture species had been sold in an existing local market in the communities as well as in the large market of the cities of Atakpamé, Kpalimé and Lomé. The financial benefits from taungya agroforestry system, as a source of livelihood for local communities, would be an incentive leading to the continuation of interventions regarding forest management and forest rehabilitation.

c) Technical sustainability

It was noted a keen interest of local communities and other stakeholders in various technical trainings carried through the implementation of this project (identification and selection of mother trees for the collection of seeds, establishment and management of nurseries for the production of seedlings, tree planting, main silvicultural treatments/operations, etc.). Local communities and other stakeholders had acquired experience and skills in forest management and forest rehabilitation techniques and would, to a certain extent, be in a position to continue implementing them after the project completion.

VI. Concluding Remarks

As the ITTO Secretariat received the Project Completion Report, Consultant Technical Reports, Workshop Reports, as well a satisfactory Final Financial Audit Report, the Committee may wish to declare the Project PD 197/03 Rev.2 (F) as completed. Soft copies of abovementioned reports and documents are available, upon request, from the Secretariat.

(2) PD 372/05 Rev.1 (F) Contribution to Forest Rehabilitation in Thailand's Areas Affected by Tsunami Disaster

Budget and Funding Sources:

Total Budget:			US$	1,133,640
ITTO Budget:			US$	790,020
Government of Japan (BPF-A)	US$	230,020		
Government of Switzerland	US$	500,000		
Government of U.S.A.:	US$	50,000		
Government of Republic of Korea:	US$	10,000		
Government of Thailand:			US$	343,620

Implementing Agency: Royal Forest Department of Thailand in collaboration with Thailand Environment Institute

Session of Approval: ITTC Session XXXVIII, June 2005, Brazzaville, Republic of Congo

Starting Date and Duration: July 2008 / Planned: 36 months, Actual: 66 months
Extension until January 2013 (NOL Ref. No F.11-0108)
Extension until July 2013 (NOL Ref No F.13-0024)
Extension until December 2013 (NOL Ref No. F.13-0194)

I. Introduction

The project was approved by the Council at its 38th Session as a tsunami relief project and was fully funded during the 39th Session. The agreement regulating the implementation of the project was forwarded to the Government of Thailand in February 2006 for signature and was duly signed by all parties in July 2007. The first disbursement of funds was made in July 2008. The duration of the project was extended until December 2013 to strengthen the project activities by fully achieving the project's objectives without additional funds.

II. Project Objective

The project development objective was to promote the long-term rehabilitation of the coastal forest resources and the livelihoods of local communities following the tsunami disaster in southern Thailand. Specifically, the project aimed to initiate a process of developing a community-based coastal resource management to enhance the contribution of forests to sustainable livelihoods and ecological security (CBM-SLES) and to promote bamboo use in the tsunami affected areas in order to meet the medium and long-term needs in rural house construction.

III. Project Achievements and Outputs

Specific objective 1: To initiate a process of developing a community-based coastal resource management to enhance the contribution of forests to ecological security (CBM-SLES)

Output 1.2: 250 km of destroyed coastal forests rehabilitated

- Stakeholder analysis was conducted together with a need assessment of 52 persons. The output led to design 5 training programs. A manual of knowledge and guide for coastal forest surveying and rehabilitating and for developing the participatory management was produced.
- Replacement planting was implemented in terrestrial, beach and mangrove forests with 7,693 participants for 752 hectare. Moreover, community forest management was promoted in 12 communities covered 3,688 ha of coastal forests.
- Two workshop training courses on forest resources management were conducted with 82 participants who are community leaders and local government officers.

Output 1.3: 100 ha of bamboo plantations established in tsunami affected areas

- Conducted a survey to choose the species for bamboo plantation establishment. Two training course on "Bamboo Planting and Utilization" were organized in February 2010 with attendance of 100

participants in Phang Nga and Ranong provinces while two training courses for bamboo seedlings propagation were organized in May and June 2010 at Kanchanaburi and Krabi provinces, respectively.
- A total amount of 51,900 bamboo seedlings was planted cover 100 hectares. They are Pai Tong (*Dendrocalamus asper*), for shoot and pole production, Pai Ruak Dam (*Thyrsostachys oliveri*), Pai Sang Mon (*Dendrocalamus sericeus*) for pole production, and Pai Kim Sung (*Bambusa beecheyana*) for shoot production.

Output 1.4: Awareness raising activities implemented
- Raising awareness had been focused on adult people, youth beyond education systems, and school youth through various activities relating to coastal resources survey and valuation as well as local knowledge.
- Signboards to campaign the natural resources conservation, community forest, mangrove planting and conservation were widely disseminated.

Output 1.5: Two Pilot CBM-SLES plans developed and endorsed by major Stakeholders
- Selected two pilot sites for developing a coastal resources management plan at 1) Ao Kapur Bay, Kapur district in Ranong province and 2) Koh Kor Khao Island, Takua Pa district in Phang Nga province. They focused on coastal resources rehabilitation and management, sustainability of coastal resources utilization, network and capacity development on coastal resources management.
- The revised plans were validated by 45 and 65 participants in Ao Kapur Bay and Koh Kor Khao Island stakeholder meetings, respectively. Some revised activities led to action for watershed forest area protection and cultivating for artificial coral reef.

Specific objective 2: To promote bamboo use in tsunami affected areas in order to meet medium and long term needs in rural house construction

Output 2.1: Capacity in use of bamboo for house construction strengthened
- A study tour with 10 participants was carried out to China in May 2010. All participants gained good knowledge and experiences on bamboo utilization and innovative products from bamboo.
- A workshop on bamboo utilization and furniture making was held in November 2010 in Phang Nga province with 50 participants. After that, a cooperative group of bamboo furniture production and bamboo house construction was established at Maenang-Khao sub-district.

Output 2.2: Technology for bamboo house construction in use
- Physical properties of five bamboo species (*Bambusa bambos, B. longispata, Dendrocalamus hamiltonii, Thrysostachys oliveri, T. siamensis*) were tested for the suitability of making furniture and house in the tsunami affect areas.
- A training course on bamboo utilization and furniture design was organized in December 2010. The first bamboo house was built by a joint-venture with a resort owner at Kura Buri district, along with on-job training in February 2012 while the second one was jointly constructed with a resort owner at Koh Kor Kao island in May 2013.

Before the completion of the project, a seminar on “Contribution to Forest Rehabilitation in Thailand’s Areas Affected by the Tsunami Disaster” was held in September 2013 in Bangkok. It provided a good opportunity for key stakeholders to get better understanding of project results, including community involvement and participation. The project had prepared several technical reports and manuals. These include: Secure communities in the Tsunami affected areas (Thai-Eng.); CBM-SLES plans of Kapur Bay and Kor Khao Island (Thai); Community-based, forest rehabilitation in the tsunami affected areas (Thai–Eng.); Physical and Mechanical Properties of Some Thai Bamboos for House Construction (Thai-Eng.); Bamboo Planting, Propagation, and Management (Thai); Proceeding of the Training Workshop on Bamboo Utilization and Furniture Making (Thai-Eng.); and Proceeding of the Seminar on Achievement of the Project (Thai-Eng.). Copies of project technical reports are available either upon written request from the Secretariat or the Executing Agency.

IV. Outcomes and Impacts

The outcomes of the project have contributed to the engagement of coastal communities around the tsunami affected areas in restoring the degraded coastal ecosystems in terms of livelihoods improvement and ecology security. Community leaders in the project sites have more knowledge and experience on coastal forest management about how to secure the ecosystem and obtain benefits from increasing of mangrove areas and aquatic animals in the near future. The outcomes of the project also include that communities around tsunami affected areas know how to manage bamboo plantations for better shoot and pole production as well as bamboo utilization. The bamboo utilization training courses facilitated generating more knowledge and experiences on bamboo propagation, planting and utilization especially on bamboo

furniture making and bamboo house construction which can create more job opportunity in southern Thailand.

The impacts of the project include: awareness of the public and key stakeholders active in coastal forest management has been improved significantly with better understanding of special needs and expectations of local communities; the capacity of provincial and local administrative services to rehabilitate damaged forests and to manage them by integrating the dimension of ecological security has been strengthened; the project provided many opportunities for public, NGOs, local communities and scientists to participate in the discussion of establishing sustainable coastal forest management systems with active engagement of local communities; availability of coastal forests' baseline data in the pilot areas has been increased; and knowledge and skills of bamboo plantation and utilization such as bamboo furniture and house have been improved with job creation in southern Thailand.

V. Lessons Learnt and sustainability

Key findings on project assessment and lessons learned from the implementation of the project include;

- Sustainable forest rehabilitation requires integrated local and scientific knowledge on defining the purpose of rehabilitation, selecting the plantation species that are suitable to the area in line with local community needs. Rehabilitation plans and activities must do in accordance with local conditions and local community's life styles to facilitate community acceptation and participation
- Integrated coastal resources management systems should deal with the integration from upstream to downstream and among related agencies' plans.
- Organizing training courses was one of the effective ways to change local communities' perception and knowledge. A series of bamboo training courses provided an opportunity to gradually change local farmers' attitude and realize the benefit of growing bamboo as an additional generation source. For bamboo furniture and bamboo house, more designs should be concerned and developed for a variety of shapes and styles to increase the product values.
- Unexpected severe drought, rain and flood in southern Thailand caused the postponing of training courses/workshops and plantation activities. These caused the project extension. In addition, unclear collaboration structure between the EA and the Collaborating Agency (Thai Environment Institute) caused a delay of project implementation at its early stage.

In order to strengthen the sustainability after the project completion, activities on awareness raising and capacity building for local community will be continuously devoted along with the supportive conditions such as community revolving funds, coastal resources management integrated plans, local government agencies, and school curriculums on the sustainable use of natural resources. The implementation of two Pilot CBM-SLES plans developed and endorsed by major stakeholders will be maintained by the annual activities of the Thai Environment Institute to ensure the long-term improvement of sustainably managing coastal resources in southern Thailand. Moreover, the equipment and machineries delivered to the bamboo furniture group will lead to sustainable job creation. For the continuing and extension of the project outcomes, the Royal Forest Department has a number of several research projects on bamboo plantation and utilization which will be disseminated to key stakeholders in the project areas in the coming years.

VI. Concluding Remarks

Overall, the project has significantly contributed towards the long-term rehabilitation of the coastal forest resources and the livelihoods of local communities in the tsunami affected areas in southern Thailand. Specifically, the project has developed a community-based coastal resource management system to enhance the contribution of forests to sustainable livelihoods and ecological security particularly in Ranong and Phang Nga provinces.

As the ITTO Secretariat has received the Project Completion Report, several Technical Reports and the satisfactory Final Financial Audit Repot in accordance with the project agreement, this project can be reported as completed.

(3) PD 376/05 Rev.2 (F) To Develop and Promote a Monitoring Information System to Support the Sustainable Development of Tree Resources Outside Forests at the Sub-district Level in Thailand

Budget and Funding Sources:

Total Budget:			US$	718,487
ITTO Budget:			US$	462,645
Government of Japan (MoFA):	US$	439,645		
Government of Australia:	US$	13,000		
Government of Republic of Korea:	US$	10,000		
Government of Thailand:			US$	255,842

Implementing Agency: National Park, Wildlife and Plant Conservation Department (DNP) of Thailand

Session of Approval: ITTC Session XL, May-June 2006, Mérida, Yucatán, Mexico

Starting Date and Duration: December 2008 / Planned: 36 months, Actual: 60 months
Extension until March 2012 (NOL Ref. No. F.11-0201)
Extension until December 2012 (NOL Ref. No. F.12-0093)
Extension until July 2013 (NOL.Ref.No.F.13-0065)
Extension until December 2013 (NOL Ref. No.F.13-0182)

I. Introduction

The project was approved at the 40th Session of the Council and fully funded at the same Session. The agreement regulating the implementation of the project was duly signed in January 2008. The first disbursement of funds was made in September 2008 and the project commenced in December 2008. The project's duration has been extended until December 2013 to fully achieve the objectives of the project.

The National Park, Wildlife and Plant Conservation Department (DNP) has implemented the project activities in close collaboration with the Royal Forest Department (RFD), Ministry of Natural Resources and Environment (MONRE). Educational institutions such as Faculty of Forestry, Kasetsart University including local universities have been invited to project workshops and demonstration sites.

II. Project Objective

The project aimed at contributing to the sustainable development of tree resources outside forests (TROF) for maximum socio-economic and cultural benefits to the rural people of Thailand. Its specific objective was to develop and promote procedures to establish current and easily accessible baseline inventory and monitoring information on TROF cover, diversity and abundance to support TROF national policy development and land use planning at the sub-district level.

The adopted project strategy involved the following steps: consulting with representatives from sub-districts and private forest and land owners, national experts and other stakeholders to determine TROF formations and uses across the country; pilot testing of a methodology to survey and monitor existing TROF biomass, cover and diversity; and selecting two sub-districts as demonstration areas to promote the use of the inventory and monitoring information system for sustainable management of TROF.

III. Project Achievements and Outputs

Output 1: TROF uses and formations defined.

- Four regional workshops and one national workshop were held with sub-district leaders and other stakeholders to review TROF definition, uses and other related information needs, and to identify potential demonstration sites.
- After a series of consultation workshops, the definition of TROF was adopted. The adopted definition is "Trees and other plants in the lands outside forest." Trees and other plants include trees, bamboo, rattan, palm, climbers, shrubs, and herbs while excluding agronomic crops (e.g. cassava, rice). Lands

outside forest are areas where trees or other plants can be planted within relevant laws or government cabinet resolutions. The lands outside forest are basically lands outside conservation forests or reserved areas.

Output 2: TROF inventory and monitoring information system developed.

- Developed components of an inventory and monitoring information system, including a mapping system and ground sampling design for inventory and monitoring data collection, and Geographic Information System (GIS) applications for data storage, analysis and integration with all available secondary information including socio-economic data and local knowledge. The monitoring includes data on baseline inventory and changes and trends in the location, quality and amount of TROF timber and non-timber forest resources.
- Conducted a pilot test of the draft TROF inventory and monitoring system, including mapping and sampling design for inventory and monitoring data collection. This draft was adopted accordingly by major stakeholders. A user's guide for TROF inventory and monitoring has been prepared and published.

Output 3: TROF inventory and monitoring information and sustainable management promoted.

- Two demonstration sites were established after a series of consultation meetings: one in Ubon Ratchatani, northeastern province and the other in Chumpon, southern province. The northeast demonstration area consists of one sub-district (Nong Lao) while the south demonstration area is located in two sub-districts (Parto and Pat Song). A combination of sector sampling (areas with scattered trees) and fixed-area plot sampling (community forest areas) approaches was established in the Nong Lao sub-district. Only the fixed-area plot sampling approach was applied in the Parto and Pak Song sub-districts because most of the TROF areas are covered with coconut, rubber and oil palm plantations.
- "Guidebook for the Inventory and Monitoring of Tree Resources outside Forests in Thailand" was prepared in both English and Thai.
- There were two workshops in two demonstration areas in Nonglao sub-district in Ubon Rachathanee province and in Pato and Paksong sub-districts in Chumphon, for training in TROF methodology and application for regional staffs and local institutions.

This project's immediate achievement is that it has provided inventory statistics of tree volume, biodiversity and other attributes in the three sub-districts in the two demonstration sites. Technical reports published by the project include:

- Proceedings of four regional workshops on TROF definition Workshop (Thai-Eng.)
- Proceedings of national workshop on TROF (Thai-Eng.)
- Manuals on pilot sector sampling and fixed-grid sampling field procedures (Eng.)
- Pilot project results for the inventory and monitoring of TROF in Thailand (Eng.)
- Establishment of project demonstration areas for the inventory and monitoring of TROF in Thailand (Eng.)
- Guidebook: The inventory and monitoring of TROF in Thailand (Eng.)

Project's technical reports have been submitted to ITTO and posted on the Executing Agency's website (www.dnp.go.th) and copies of technical reports are available either upon written request from the Secretariat or the Executing Agency.

IV. Outcomes and Impacts

The Project has developed inventory and monitoring procedures for the sustainable management of TROF, and established two demonstration sites to build awareness and participation of the local communities in the use of these procedures. Such TROF inventory and monitoring skills can be implemented by the local people themselves (with limited technical support) at the sub-district or village levels. With political will from local leaders and cooperation from land owners, these tools are being adopted and implemented widely, which have contributed to:

- Informed policies to promote sustainable management of TROF.
- Improved socio-economic conditions of the local communities replicating the demonstration project results in their sub-districts. The monitoring information system has generated TROF information for better land use and economic planning while promoting the sustainable supply of TROF which local people are dependent on their livelihoods.

- Reduced unnecessary loss of TROF cover and biodiversity, and thus improved the ecological and environment conditions.
- Reduced illegal logging and harvesting of NTFPs in supporting the national natural forest conservation efforts.
- Better inter-departmental information sharing on TROF to promote sustainable management of TROF, formulation of national TROF policies in the context of promoting sustainable forest management.

Since the ban on logging in natural forests in Thailand in 1989, the country's timber production has declined and rural people and local wood-based industries have become increasingly reliant on timber and no-timber products being producing in various tree resources outside forest (TROF). In light of such needs of the local communities, the project has promoted stronger recognition that sustainable management of TROF is essential for the achievement of SFM. Based on the achievements of the project, sustainable TROF management, formulation of national TROF policies have been improved substantially. TROF as an alternative means will play an important role in the production of timber and non-timber forest products while improving the livelihoods of forest-reliant communities in Thailand.

V. Lessons Learnt and sustainability

Key lessons learned from the implementation of the project include:

- The effective establishment of a methodology for inventory and monitoring of TROF has been critical. Close cooperation with the Royal Forest Department (RFD) and academicians of universities was important. Experienced local staff members of DNP and RFD were essential to mainstreaming TROF inventory and monitoring skills within the sub-district administration of the two demonstration sites.
- A participatory approach in establishing the demonstration sites involving the local people and administrators took a long time but was very productive. Collection of socio-economic data and modelling work could have done efficiently with more proper planning.
- The delay of the project completion has been caused by external factors that could not have been foreseen. These include a large amount of data to edit and process. A massive flooding that affected Bangkok and neighboring provinces forced postponement of some project activities.
- Following feedback from the demonstration areas workshops, the project stakeholders have recognized that there is a continued need to improve models to integrate TROF biophysical data with socio-economic data; to adjust reforestation and community forestry programs and extension services; and to promote awareness of TROF for their multiple benefits, including biodiversity and climate change, at the local and sub-district levels.
- Work on the development of tree resources outside forests after the completion of the project will be depend on the continuous support by various divisions from both DNP and RFD. Biodiversity conservation will be likely a major source of funding for development of tree resources outside forests.

In light of the importance of biodiversity conservation and people participation specified in the current 10th National Economic and Social Development Plan of Thailand, extension of the project activities will be continuously conducted by responsible agencies, RFD and DNP. The responsible bodies have been proposed, for example, community forest establishment will be supported by Community Forest Management Bureau while promoting biodiversity and land use change monitoring aspects will be facilitated by Biodiversity Conservation Division and Forest Land Management Division, respectively.

In addition, the engagement of the private sector in the development of tree resources outside forests has been encouraged. Forest rehabilitation and eco-tourism development has been recognized for the private sector's active engagement. A large private sector like Siam Cement Group, Petroleum Authority of Thailand and the Government Saving Bank have been invited to support natural resources conservation and community development, and development of tree resources outside forests through their corporate social responsibility programs. Educational institutions such as Faculty of Forestry, Kasetsart University including local universities will be invited to the project demonstration sites for the improvement of the methodologies for TROF inventory and monitoring.

VI. Concluding Remarks

Overall, the project has been successful in the development of tree resources outside forest (TROF) inventory methodologies and monitoring systems although there has been a long delay in the completion of the project. It has contributed to better inter-departmental information sharing on TROF to promote sustainable TROF management and formulation of national TROF policies in the context of sustainable forest management in Thailand.

As the ITTO Secretariat has received the Project Completion Report, several Technical Reports and the Final Financial Audit Repot in accordance with the project agreement, this project can be reported as completed.

(4) PD 501/08 Rev.1 (F) Promoting Household Reforestation in Tropical Zone of Southwestern China through Development and Extension of Household-Oriented Techniques

Budget and Funding Sources:

Total Budget:		US$	592,263
ITTO Budget:		US$	353,435
Government of Japan (MoFA):	US$ 353,435		
Government of China:		US$	238,828

Implementing Agency: Yunnan Academy of Forestry (YAF)

Session of Approval: ITTC Session XLIV, Nov. 2008, Yokohama, Japan

Starting Date and Duration: March 2010 / 36 months

I. Introduction

The 36-month project was approved under Spring-2009 Project Cycle through the electronic approval system put in place, and it was fully financed at the Forty-fifth Session of the Council in Yokohama, in November 2009, by the Government of Japan. The Agreement regulating the implementation of the project was signed on 18 January 2010. The first disbursement of ITTO funds was made on 10 March 2010. No project extension was requested by the Executing Agency at the end of the formal project implementation period on 01 March 2013. As an acceptable version of the project completion report was received in March 2014, the project operation period had lasted 48 months instead of 36 initially designed by the implementing agency (YAF). The project final financial audit report was submitted in March 2014 by the Executing Agency, allowing this project to be documented as completed during the 48th CRF Session.

II. Project Objective

The project contributed to promote household reforestation as well as rural development, in tropical mountainous areas of Southwestern China, through the development and extension of some appropriate household-oriented reforestation techniques (HORT). It specifically intended to promote these appropriate household-oriented reforestation techniques (HORT) through close cooperation between the Yunnan Academy of Forestry and local households in the tropical area of Yunnan Province.

III. Project Achievements and Outputs

The main implementation strategy of the project was to develop “Household-Oriented Reforestation Techniques (HORT)” through a close cooperation between the Yunnan Academy of Forestry (YAF), as a research institute, and local households selected for the project implementation. The dissemination of the project results and findings on HORT to households was done through selected grassroots networks in charge of extension of forestry techniques and information and operating in the Yunnan Province.

The main project achievements and outputs are summarized in the following table:

Project elements	**Results and findings**
Specific Objective: Promote household-oriented reforestation techniques (HORT) through close cooperation between Forestry Research Institute and local households	The specific objective was achieved during the project implementation through the contribution of the following expected outputs: • HORT developed and available for extension; • G-NETEIS established and capable for HORT promotion

Output 1: household-oriented reforestation techniques (HORT) developed and available for extension	HORTs have been developed and disseminated by Yunnan Academy of Forestry
Activity 1.1: assess technique demands of household in project area	Consultation process with households was undertaken in order to take into account their views, needs and interests during the project implementation
Activity 1.2: select 1-2 households to establish 0.5 ha of trial nursery to conduct technical trial for seed handling, container selection, fertilization, and integrated management of nursery	One household that had already certain experience in forest plantation was selected and established 0.5 ha of trial nursery, mainly for the production of seedlings of local species (*Pterocarpus indicus*, *Dalbergia odorifera*, *Aquilaria sinensis*, *Podocarpus neriifolius*, and *Betula alnoides*)
Activity 1.3: establish 10.64 ha of trial plantations on household forest land to conduct technical trials for site preparation, mixture planting, planting density, fertilizing, and multi-layer forestry	10 ha of trial plantations were established by local communities on household degraded forest land, in Jingxin Township, Menglian County, Yunnan Province
Activity 1.4: wrap up project research results and review relevant literatures;	Technical meetings were organized to share the project results on HORT among experts in Yunnan Academy of Forestry
Activity 1.5: formulate *Technical Report of Household Reforestation*	Technical Report on Household Reforestation was prepared by Yunnan Academy of Forestry in Chinese language
Activity 1.6: draft, publish and distribute *A Technical Manual for Household Reforestation*	*A Technical Manual for Household Reforestation* was prepared in Chinese language for the dissemination of key findings to local communities
Output 2: grassroots networks for technique extension and information services (G-NETEIS) established and capable for HORT promotion	Two G-NETEIS networks were established and made operational for the promotion of HORT in Menglian County, Yunnan Province
Activity 2.1: select 2 townships/towns to establish pilot g-NETEIS	Mangxin and Jinxing Townships, in Menglian County, were selected to establish and operate pilot G-NETEIS
Activity 2.2: establish 60.0 ha of demonstration plantations on household forestland	60 ha of demonstration plantations on household forest land were established in Mangxin township, Menglian county
Activity 2.3: formulate *A Handbook for Forestry Technique Extension Practitioner*	The *Handbook for Forestry Technique Extension Practitioner* was distributed to each forestry extension station, in Yunnan Province, and training workshops were conducted on its use
Activity 2.4: organize training workshop for extension practitioners and 150 rural residents	10 training workshops conducted for 50 extension practitioners and 150 rural residents (3 courses)
Activities 2.5: organize Tropical Southwestern China Workshop on HORT and G-NETEIS	A workshop on HORT development and G-NETEIS establishment was organized for over 100 participators from all Counties of Yunnan Province

IV. Outcomes and Impacts

The main project outcomes and impacts, in relation to the expected outputs and associated activities, can be summarized as follows:

Before project implementation	After project implementation
Lack of knowledge on local tree species, especially valuable timber tree species by community members who expressed some interest in establishing forest plantations in Menglian County, Yunnan Province	Dissemination of knowledge in relation to main local timber species for a better understanding of how to produce their seedlings in nurseries established and maintained by local communities, on tree planting for the establishment of forest plantations contributing to the rehabilitation of degraded forest lands in Menglian County, Yunnan Province. Focus was particularly given to the most valuable native timber tree species.

Timber seedlings for the forest rehabilitation activities were mainly provided by local Forestry Bureau of the Menglian County	Local communities have become self-sufficient for the timber species seedlings, as they have been trained on techniques for the production of timber species seedlings through the establishment and maintenance of nurseries by selected members of the community who have acquired the skill and knowledge for that purpose.
The techniques for soil preparation prior to the tree planting for the establishment of forest plantations were not mastered by local communities	The project had carried out some demonstration and training activities in relation to the techniques for the preparation of soil prior to the tree planting. Local communities were associated to practical tasks during those demonstration and training activities in order to facilitate the transfer of knowledge on soil preparation and fertilization process. It was a demonstration that a good soil preparation could contribute to improving the growth of trees in forest plantations established by local communities, as their contribution to the rehabilitation of degraded forest lands.
The tree planting was usually implemented by local communities without following the appropriate technical guidance, due to the lack of capacity	The project has contributed to build the capacity of local communities regarding the efficient ways to establish forest plantations. It contributed also to help community members being organized in associations which could facilitate the dissemination of techniques and knowledge on tree planting leading to the establishment of forest plantations. The project implementation was an opportunity to promote the establishment of mixed forest plantations combining several native species, contributing to the biodiversity conservation in the forests rehabilitated by local communities. Main silviculture operations/treatments were part of training sessions organized by the project experts from the Yunnan Academy of Forestry.

The sensitization campaigns, carried out during the project implementation, had contributed to get greater awareness by local communities about the environment protection and the importance of forest rehabilitation through a participatory approach involving all key stakeholders.

V. Lessons Learnt and sustainability

5.1 Lessons learnt

Special arrangements made with key stakeholders contributed to the smooth implementation of the project, the responsibilities and rights of each stakeholder were clearly defined prior to the involvement in the project implementation. Those special arrangements were related to the ways and means to ensure a smooth cooperation among them on different issues regarding the project implementation, such as: the ownership of benefits from seedling production, trees planted in forest plantations, etc. These special arrangements were considered as a good basis for the sustainability of main project outcomes and results.

Participatory approach was applied for the project implementation, i.e. selection of sites in degraded forest lands to be rehabilitated, tree species selection, nursery establishment and maintenance, seedling raising and production. The participatory approach was smoothly implemented because of a good communication strategy with key stakeholders through appropriate structures operating in the Menglian County. It has been a two-way communication process making sure that the ideas and suggestions from local communities could be taken into account during the consultation of stakeholders. Through these efforts and methods of communication, the enthusiasm of selected local community members in being involved in the project implementation had been stimulated and they expressed more interest to the project.

5.2 Project sustainability

The achievements of the project could be considered as a good demonstration and guidance for the forest rehabilitation programs and the ecological construction programs in the western part of China. The

techniques promoted during the project implementation could produce significant integrated benefits including ecological, economic and social aspects.

After project completion, the nursery will be operated and maintained by the household who is the land contractor, with the technical support from grassroots networks for technique extension and information services (G-NETEIS) which is operational in that area. At the same time it will be kept on as a demonstration nursery motivating interested households to carry out seedling production.

The County Extension Station will take charge of the future management of G-NETEIS, under the leadership of County Forestry Bureau and in collaboration with local technical agencies, such as Pu'er Forestry Research Institute, Pu'er Forestry Vocational School and Pu'er Forestry Technique Extension Stations.

VI. Concluding Remarks

As the ITTO Secretariat received from the Executing Agency the Project Completion Report, Technical Reports, as well a satisfactory Final Financial Audit Report, the Committee may wish to declare the Project PD 501/08 Rev.1 (F) as completed. Soft copies of abovementioned reports and documents are available, upon request, from the Secretariat.

- **COMPLETED PRE-PROJECTS**

(1) PPD 165/12 Rev.1 (F) Study for the Rehabilitation and Sustainable Management of Sacred Forests on Ramsar Sites 1017 and 1018 in Benin

Budget and Funding Sources:

Total Budget:			US$	96,980
ITTO Budget:			US$	79,380
Government of U.S.A.:	US$	39,380		
Government of Rep. of Korea:	US$	20,000		
Government of Japan:	US$	20,000		
Ce.Sa.Re.N - NGO:			US$	17,600

Implementing Agency: Ce.Sa.Re.N - NGO

Session of Approval: October 2012

Starting Date and Duration: April 2013 / 8 months

I. Introduction

The 8-month pre-project was approved under Autumn-2012 Project Cycle through the electronic approval system put in place, and the financing was made at the same Project Cycle by the Government of Japan, Korea and USA. The Agreement regulating the implementation of the pre-project was signed in March 2013. The pre-project implementation was initiated in April 2013 following the disbursement of the first installment of ITTO funds. As an acceptable version of the pre-project completion report was received in May 2014, as well as the financial audit report, the duration of the pre-project implementation had lasted 13 months instead of 8 initially designed by the implementing agency (ONG-CESAREN).

II. Pre-project Objective

The aim of this pre-project was to contribute to the sustainable forest management and conservation of biodiversity in Benin by building the capacity of local communities to improve their living conditions, through the conservation of Sacred Forests (SFs) part of Ramsar Sites 1017 and 1018. It specifically intended to evaluate the potential of Sacred Forests located in the Ramsar Sites 1017 and 1018, in order to formulate a project aiming to support their rehabilitation and sustainable management.

III. Pre-project Achievements and Outputs

The main pre-project achievements and outputs are summarized in the two following tables:

a) Achievement of outputs

Outputs	Level of achievement
1. Baseline information on the SFs of the target sites is available	Several technical reports providing updated and documented information and data on the Sacred Forests located in the Ramsar Sites 1017 and 1018, in Benin, were prepared by consultants and validated by key stakeholders through a participatory approach.
2. A project proposal to support the rehabilitation and sustainable management of Sacred Forests within Ramsar Sites 1017 and 1018 in Benin is formulated and submitted to ITTO approval.	A project proposal was formulated with the updated information and data gathered and analyzed through the implementation of this pre-project. It was validated by main stakeholders, and submitted to the ITTO regular project cycle. It was registered as PD754/14 (F) by the ITTO Secretariat with the following title: "*Rehabilitation and sustainable management of Sacred Forests on Ramsar Sites 1017 and 1018"*.

b) Achievement of objectives

Objectives	Level of achievement
Development Objective: To contribute to the conservation and sustainable management of biodiversity in Benin by building the capacity of local communities to improve their living conditions	Relevant information and data (forest inventory, socioeconomic, environmental, mapping aspects) required for the formulation of a full project proposal were gathered and analyzed during the pre-project implementation, through studies and surveys carried out in the target zone of the future project, with the collaboration of key stakeholders.
The Specific Objective of the preliminary draft is to evaluate the potential of 1017 and 1018 Ramsar sites sacred forests in order to formulate a project proposal for the rehabilitation and sustainable management of these forests	A project proposal was developed in a participatory process while taking into account the findings of studies carried out by consultants in the Sacred Forests part of Ramsar Sites 1017 and 1018, in Benin. It was appraised by the 48th Expert Panel in August 2014.

IV. Outcomes and Impacts

The main pre-project outcomes and impacts, in relation to the expected outputs and associated activities, can be summarized as follows:

- The pre-project implementation was an opportunity to gather and analyze more information and data (environmental and socio-economic aspects) on the Sacred Forests (SFs) part of Ramsar Sites 1017 et 1018 and also to precisely map and demarcate them;
- Key stakeholders were identified and involved in the assessment of the potential of these SFs and the sensitization campaigns led some of them to endorse the project objectives and even contributed to get the commitment of some local authorities for the co-financing of the future project; and
- Better sharing of the project's aim and strong involvement of key stakeholders contributed to develop a project proposal based on accurate information and data.

V. Lessons Learnt and sustainability

5.1 Lessons learnt

For the project derived from the implementation of this pre-project, it was important to give priority to the establishment of a consultation technical committee aiming to address the issue of cultural beliefs and taboo linked to SFs in Benin, in order the ensure the involvement of key stakeholders operating in the target zone. The implementation of this pre-project was an opportunity for sensitization campaigns aiming to show the importance of Ramsar Sites 1017 and 1018, in Benin, which are dotted with pockets of Sacred Forests

with a very rich biodiversity, representing a natural heritage of great value for their multiple functions (socio-cultural, ritual, environmental, etc.). These Sacred Forests constitute an endogenous form of biodiversity conservation and play a crucial role in the lives of local communities.

5.2 Sustainability

For the future project derived from the implementation of this pre-project, the sustainability should be based on the involvement of key stakeholders, including local communities, through a participatory process to be considered as a key element of the project implementation strategy. The involvement of key stakeholders, including local communities, in the management of SFs part of Ramsar Sites 1017 and 1018, should contribute to the sustainability if their interests and needs are taken into account. As part of contribution to the sustainability, some local authorities have expressed the commitment for the co-financing of the future project.

VI. Concluding Remarks

Since the Implementing Agency has completed its activities in accordance with the ITTO rules and procedures and the ITTO Secretariat has received the pre-project Completion Report, Consultant Technical Reports, Financial Audit Report, and the project proposal PD 754/14 (F) derived from the pre-project implementation (for the ITTO regular cycle), the Committee may wish to consider the pre-project PPD 165/12 Rev.1 (F) as completed. Soft copies of abovementioned reports and documents are available, upon request, from the Secretariat.

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