ITTO-CITES PROGRAM FOR IMPLEMENTING CITES LISTINGS OF TROPICAL TIMBER SPECIES NEWSLETTER





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Suggestions and contributions from project participants are essential to make future issues of this newsletter as informative and interesting as possible. Please send any correspondence to the relevant contact(s) listed on the last page.

EDITORIAL

the period July-September 2010.

Since late 2008, a number of activities have been implemented under the ITTO-CITES project in Africa, Asia and South America. In Asia, especially in Indonesia and Malaysia, a number of activities targeting at the conservation, management and sustainable use of Gonystylus (ramin) species, as well as trade in illegal ramin timber and timber products have been implemented. These activities range from improving inventory design to estimate the growing stock of ramin, assessing appropriate silvicultural system for managing ramin, and the potential use of non-Gonystylus bancanus species in Indonesia to the development of a DNA database and further elaboration of status and stocking of G. bancanus in Sarawak, Malaysia, as well as quantification of Gonystylus, Aquilaria (agarwood) and Intsia species (merbau), and use of hyperspectral technology to generate spatial distribution maps of G. bancanus, including radio frequency identification (RFID) to trace the movement of ramin in Peninsular Malaysia. Other activities include the establishment of permanent sample plots to enable both Indonesia and Malaysia to continuously monitor the growth and yield of ramin forests.

As result of successful implementation of the projects in Indonesia and Malaysia, a number of publications have been produced, enabling forest managers to further enhance their skills and knowledge in managing ramin, including conducting Non-Detrimental Finding assessment on ramin. The sets also include a guidebook for field identification of ramin species in Indonesia, the availability of ramin spatial distribution maps prepared from airborne hyperspectral data in Peninsular Malaysia, among others.

A regional workshop scheduled to be held in December will culminate the implementation of the activities under the ITTO-CITES Program in Asia where participants will share, learn and discuss the findings of the activities implemented in Indonesia and Malaysia; adapt relevant findings from the Indonesian activities by Malaysia and vice-versa; and identify new activities for enhancing sustainable management of ramin.

Thang Hooi Chiew, Regional Coordinator for Asia

ITTO-CITES PROGRAM FOR IMPLEMENTING CITES LISTINGS OF TROPICAL TIMBER SPECIES

ITTO-CITES PROGRAM IN A NUTSHELL

The "ITTO – CITES Program for Implementing CITES Listings of Tropical Timber Species" aims to ensure that international trade in CITES-listed tropical timber species is consistent with their sustainable management and conservation. The specific objective of the program is to assist national authorities to meet scientific, administrative and legal requirements for managing and regulating trade in *Pericopsis elata* (afrormosia) of Central Africa, *Swietenia macrophylla* (bigleaf mahogany) in Latin America, and *Gonystylus* spp. (ramin) in SE Asia and, in particular, to develop guidance to ensure that utilization is not detrimental to the survival of these CITES-listed tropical timber species.

The main range States exporting significant volumes of these species are Cameroon, Republic of Congo and Democratic Republic of Congo in Africa; Indonesia and Malaysia in Asia; and Bolivia, Brazil and Peru in Latin America.

The direct beneficiaries of this Program are public authorities and private sector operators in the timber sector in the range States. The indirect beneficiaries are other Parties to CITES that trade in these species, who will benefit through capacity building and awareness raising.

FUNDING



The program has received funding from the European Commission, United States of America, Japan, Norway, New Zealand, Switzerland, the private sector and through ITTO's Bali Partnership Fund.

The European Commission provided a grant worth 2.4 million euros for program implementation, with over USD 1,200,000 provided from the other donors in aggregate to date. ITTO will encourage donors to continue providing funds as requests for support under the program exceed available resources. One MoU has been signed since the last newsletter (see signed MoUs > Recently signed MoUs). Another positive development has been the provision of funds (300,000 euros) from Abbott-Solvay and Indena S.A.S. companies to improve management and produce an NDF report for *Prunus africana* in Cameroon.



AGREEMENTS BETWEEN ITTO AND INSTITUTIONS OF RANGE STATES

50 country activity proposals in Africa (7), Asia (23) and Latin America (20) have been submitted to ITTO for consideration under the Program. Of these, 13 activities in Asia, 6 in Africa and 6 in Latin America have received funding from ITTO since 2008. Several regional activities have also been proposed and implemented. All approved activities are still on-going except for one activity in DRC, one in Indonesia and two in Peru, which have been completed.

ITTO has signed agreements with the following institutions since program inception:

SIGNED MOUs

Brazil

FUNPEA (Foundation for Supporting Research, Extension and Teaching in Agrarian Sciences) - 2 activities

IFT (Tropical Forest Institute)/J. Grogan – 1 Activity plus extension

Bolivia

Vice Ministry of Environment, Biodiversity and Climate Change - 1 activity

Peru

UNALM (Universidad Nacional Agraria La Molina) - 2 activities

Cameroon

ANAFOR (Agence Nationale d'Appui au Développement des Forêts) - 3 activities

Democratic Republic of Congo Direction des Ressources Fauniques et Chasse /CITES RDC – 2 activities

Republic of Congo

MINFE (Ministère de l'Economie Forestière) - 1 activity

Indonesia

Government of Indonesia and the Forestry Research and Development Agency (FORDA) - 4 Activities (2 Activities by the Centre for Forest and Nature Conservation Research and Development (CFNCRD); 1 Activity by the Remote Sensing Laboratory, Faculty of Forestry, Bogor Agricultural University; and, 1 Activity by the Research Centre for Biology, Indonesian Institute of Sciences.

Malaysia

Ministry of Natural Resources and Environment Malaysia (NRE) and the Malaysian Forestry Research and Development Board - 5 Activities (2 Activities implemented by the Forest Department Sarawak and Sarawak Forestry Corporation; 2 Activities by the Forestry Department Peninsular Malaysia; and, 1 Activity by the Forest Research Institute Malaysia.

MOUs RECENTLY SIGNED

ITTO has recently signed one new MoU in Africa for an activity to be carried out in 2010. A MoU between ITTO and the Government of Cameroon was signed in July 2010 for the implementation of one activity.

Information about each country activity (country, title, abstract, executing agency) can be found on the ITTO website <www.itto.int>. The following section provides brief descriptions and progress reports during the period July-September 2010 for all activities that are currently underway, and information on new activities.

ACTIVITIES IN DETAIL

Africa

Cameroon

"Management of Pericopsis elata in forest concessions" (ANAFOR)

This activity was proposed to collect data on the state-of-the-art of *Pericopsis elata* in the forest concessions in Cameroon, including data on phenology, processing, status and stocking, and to promote silviculture of the species. The last output (silviculture) is being implemented as planned. A total of 15,490 seedlings are growing in 9 nurseries established in 11 forest management units (FMU) belonging to 5 forest companies. The Scientific Committee will start working on the preparation of the 2011 Non-detriment findings report of *P. elata* by November 2010. The second report will be more comprehensive, based on data obtained from systematic inventories (logging inventories) with detailed quotas defined per FMU.

"Management of Pericopsis elata in forest plantations" (ANAFOR)

This activity addresses the management of *Pericopsis elata's* plantations in Cameroon to determine tools for enhancing the management of this species in the country. Three main specific activities were conducted in August 2010, including: (1) two-days training workshop for 35 villagers and local forest officers on the Assamela management, and the nursery stock production to be defined; (2) distribution of 700 seedlings of Assamela to the surrounding villagers; (3) Assamela plantation harvesting in Bidou. Some 30% of Assamela trees were harvested as recommended by the simple management plan. The Cameroon government is still looking into additional funds to fully meet the guidelines of simple management plan of the Bidou forest plantation.

NEW ACTIVITY FOR AFRICA

"Non-detriment findings for Prunus africana (Hook. f.) Kalman in Cameroon" [ANAFOR]

This new activity seeks to address Non-detriment findings report for *Prunus africana* in Cameroon. The expected outputs are: (i) A well-established state-of-the art on production, processing, transport

and trade in *P. africana* products; (ii) Delimitation of *Prunus* Allocation Units (PAUs), and estimating *Prunus* density, and calculating sustainable harvesting quota; (iii) a simple management plan prepared and implemented for each PAU; (iv) silvicultural operations; (v) capacity-building for CITES authorities (enhancement and enforcement of control system); (vi) research on sustainable management of *P. africana* in Cameroon; (vii) making a Non-detriment findings report for *P. Africana*; and (viii) dissemination of the results.



First Meeting of the NTC on Prunus africana Project, Yaoundé, July 20, 2010 Photo by: Jean Betti

Democratic Republic of Congo

"Training of different stakeholders in the verification of the CITES permits compliance and the use of 'CITESWOOD ID' tool in the Democratic Republic of Congo" (OCC/OFIDA)

This activity refers to the national training workshop held in Kinshasa, Gombe in June 2009 on the use of CITES tools. The goal was to contribute to the control of international trade in *Pericopsis elata* through the training of field inspectors. This activity has been concluded and the report is now available on the program website.

"Dissemination of the CITES convention and its implementation texts within the distribution area of Pericopsis elata (Afrormosia/Assamela) in the Democratic Republic of Congo" (DRFC)

This activity aims to disseminate the CITES and its implementation tools. The first dissemination workshop was organized in Kinshasa, Gombe on 3 – 5 February 2010; the second workshop was organized in Kisangani on 11 – 12 August 2010; and, the third and last dissemination workshop was organized in Matadi on 17 – 18 August 2010. Some thirty persons from the custom offices, the control offices, police, and local forest administration office attended those workshops. Participants requested training on CITES WOOD ID tool, relevant material as to better control of *P. elata*'s products.

Republic of Congo

"Assessment of Afrormosia in a production forest to ensure its sustainable management in Congo-Brazzaville" (MINFE)

This activity aims to ensure that the export of Afrormosia products by the Industrial and Forestry Society of Congo (SIFCO) is not detrimental to the conservation of the species in the Tala-Tala forest management unit (621 000 ha) in the Northern Congo. The expected outputs were report on: (i) the state-of-the-art in managing Assamela; (ii) Assamela assessment/inventory; (iii) management plan; and, (iv) of non-detriment findings for Assamela in the Tala-tala forest management unit. All experts have finalized their tasks, except the experts in charge of research on biology, ecology and phenology of Afrormosia. The Scientific Committee of

the Activity met during a meeting held on 14-16 September 2010. The meeting consisted of drafting the first non-detriment findings report (NDF) based on the results. The RC for Africa assisted to organize the meeting. At this moment, no difficulty is foreseen to delay the completion of this activity.

Asia

Malaysia

"Non-detriment findings report on Gonystylus bancanus – a quantitative assessment of G. bancanus in two selected permanent forests of Sarawak" (FDS/ SFC)

The objective of the Activity in collecting data on the status and stocking of *G. bancanus* in the production forests of Sarawak, namely, the Kayangeran Forest Reserve in Lawas and the Saribas Lupar Protected Forest in Sri Aman, elaborating further the status and stocking of *G. bancanus* in these two selected Permanent Forests in Sarawak and computing the sustainable harvest quota of *G. bancanus* had been completed in July 2010. Currently, the completed technical report on the distribution and abundance of ramin in the two production forests of Sarawak and the computation of the sustainable level of harvest has been circulated for peer review by the Sarawak Forest Department. The report will be finalized for publication and dissemination to interested stakeholders before the Activity concludes in October 2010.

"Quantification of dry and wet inland Gonystylus spp. (ramin), Aquilaria spp. (agarwood) and Intsia spp. (merbau) in Peninsular Malaysia" (FDPM)

The objective of the Activity in collecting information on the distribution, status and stocking of dry and wet inland *Gonystylus*, *Aquilaria* and *Intsia* species through the re-sampling of all 59 sample plots containing *Gonystylus* species, I plot of *Aquilaria* and 7 plots of *Intsia* species, and the validation, processing and analysis of the data collected, including conducting a tree identification training course for staff of the Forestry Department Peninsular Malaysia and workers of the contractor, as well as acquisition of inventory equipment and specimen identification has been accomplished. The establishment of 10 Permanent Sample Plots has also been completed and action is currently being taken to analyze the data gathered from the first enumeration of the Permanent Sample Plots. The Activity is expected to be completed in October 2010.

"Generation of spatial distribution maps of Gonystylus bancanus (ramin) using hyperspectral technology and determination of sustainable level of harvest of ramin in production forests of Peninsular Malaysia" (FRIM)

The analysis of the different type of ramin spectral signatures from the airborne hyperspectral data (blooming, non-blooming, and semiblooming) had been completed, while post-processing of 85% of the airborne hyperspectral data has also been achieved. Two draft reports on: i) the assessment of stocking and population dynamics of ramin; and, ii) the assessment of the growth projection model using existing growing stock to determine the sustainable level of harvest of ramin in Peninsular Malaysia, have been completed. Three other draft reports on: i) the acquisition of high resolution airborne hyperspectral data; ii) study of spectral signature and ground truthing; and, iii) production of ramin spatial distribution maps, were

40% completed. In addition, 85% of the development of stocking density classification maps from spatial and non-spatial information has also been completed. The Activity expected to is be October completed in 2010.



Mahogany seeds collected at Farm Seringal Novo Macapá, Western Amazon, Acre, Brazil. Photo by: Sofia Hirakuri

"The development of Gonystylus spp. (ramin) timber monitoring system using radio frequency identification (RFID) in Peninsular Malaysia" (FDPM)

The objective of the Activity in developing a customized cost-effective *Gonystylus* species timber monitoring system using radio frequency identification (RFID), and an automated detection and notification mechanism for tracing non-compliances using customized cost-effective handheld data logger and/or gentry (gate) through the acquisition of computers, servers, printers and other related hardware, and RTRfid system peripherals, including satellite (VSAT) communication system and broadband, RFID tags (Signumat barcoded) has been achieved. The harvesting of electronic marked and tagged trees is now in progress where 50% of the tagged trees have been felled. Currently, reports on Pre-Felling activities are under preparation and the Activity is expected to be completed in October 2010.

"Developing DNA database for Gonystylus bancanus in Sarawak" (FDS/ SFC/ FRIM)

The microsatellite analysis using microsatellite markers developed from *Gonystylus bancanus* and fragment analysis has been completed. In addition, final data analysis for all samples and populations using FSTAT, Genepop and Structure has also been completed. In this context, the generation and compilation of genotype profiles according to individual population to create the DNA database has been set up in Microsoft Excel format consisting of samples number, population name, name of locus, and allele frequency. Presently, the final report on the findings and results of the Activity is being circulated for peer review by the Forest Research Institute Malaysia (FRIM) and the Sarawak Forest Department. The Activity is considered to have been completed in June 2010.

THREE NEW ACTIVITIES FOR MALAYSIA

"Sawn Timber and Plywood Recovery Study of Ramin (Gonystylus bancanus) in Peninsular Malaysia" (FDPM/MNRE)

An action has been initiated to prepare the necessary documents to engage the consultant to undertake the study on the recovery rate of ramin logs for the manufacture of sawn timber and plywood, as well as to develop a technique for quantifying wood waste from sawmilling and in plywood production, including the acquisition of equipment such as data logger and related hardware. This Activity is expected to be completed in May 2011.

"National Workshop on Enforcement Compliance for Trade in Ramin (Gonystylus species)" (Malaysian Timber Industry Board (MTIB/MPIC)

Preliminary meetings were held to discuss the logistics for holding the workshop, potential participants and paper presenters. Currently, this four-day national workshop is planned for October 2010, which is expected to further enhance the knowledge of the staff of enforcement agencies in Malaysia directly or indirectly involved in ramin trade. The workshop is also expected to develop common understanding and practices related to trade control for ramin and related timber/plant species listed under CITES, establish a special body that will act as a focal point for the enforcement and trade control of ramin, and provide effective networking and communication channel within the enforcement agencies in Malaysia.

"Regional Workshop on the Sharing of Findings from the Activities Implemented in Indonesia and Malaysia under the ITTO-CITES Project on Ensuring International Trade in CITES-listed Timber species is Consistent with their Sustainable Management and Conservation" (FRIM/MNRE)

Discussions have been held to elaborate, among others, the logistics of holding the regional workshop, paper presenters, and potential participants, including those from Indonesia. This three-day regional workshop will enable Indonesia and Malaysia to share, learn and discuss the findings of each Activity implemented in Indonesia and Malaysia under the ITTO-CITES Program, including identifying and adapting relevant findings from the Indonesian Activities by Malaysia and *vice-versa*. The Workshop will also endeavor to identify potential ramin related projects and activities in Indonesia and Malaysia to further ensure that the international trade in ramin is consistent with their sustainable management and conservation. Currently, the regional workshop is planned for early December 2010.

Indonesia

"Improving inventory design to estimate growing stock of ramin (Gonystylus bancanus) in Indonesia" (SEAMEO/BIOTROP)

The original objectives of the Activity in developing an inventory design using satellite technology for estimating the standing ramin stock and other species found growing in peat swamp forests through a review of existing methods for ramin inventory, acquisition and interpretation of satellite imageries, ground check in selected sites in Sumatra and Kalimantan, application of the cost-effective inventory method to estimate ramin standing stock, and the holding of a stakeholder consultation on the estimated standing ramin stock have been accomplished.

Furthermore, the two additional activities approved by ITTO in January 2010, i) to develop guidelines for ramin inventory and Nondetriment Findings (NDF) assessment on ramin; and, ii) to conduct a short training workshop on the inventory method for ramin and NDF assessment, have also been accomplished.

A number of reports were published, among them, the Manual of Ramin Inventory in Peat Swamp Forest; and Inventory Technique of Ramin in Peat Swamp Forest. Currently, the Guideline for Non-Detriment Finding Assessment on Ramin (*Gonystylus* spp.) and an Executive Summary of the Activity are being finalized for publication and dissemination. The project has been completed in August 2010.

"Assessing silvicultural system on ramin: review on the current practice and re-vitalization of existing permanent sample plots" (CFNCRD)

The original objectives of the Activity in conducting a review on the current practice through a detailed examination of existing rules, regulations and concepts underlying the practice of current silvicultural system, including interviews, stakeholders consultation and field visits, have been achieved.

Furthermore, the three additional activities approved by ITTO in January 2010 in developing guidelines for monitoring fruiting-flowering and ramin seed handling, a manual on vegetative propagation techniques, and to conduct a short training workshop on the manual for monitoring fruiting-flowering and ramin seed handling, as well as on vegetative propagation techniques have also been achieved.

A number of reports were published, among them, the "Evaluation of

the Silvicultural System in Peat Swamp Forest Area in Indonesia"; the "Draft Revision of the Silvicultural System in Peat Swamp Forest Area"; the "Review and Evaluation of Permanent Sample Plots of Peat Swamp Forest"; the "Technical Guideline for Monitoring Flowering of Ramin (*Gonystylus bancanus*)"; and the "Technical Guideline for Vegetative Propagation of Ramin (*Gonystylus bancanus*). Currently, an Executive Summary of the Activity is being finalized for publication and dissemination. The project has been completed in August 2010.

"Exploratory assessment on the population distribution and potential uses of non-Gonystylus bancanus species in Indonesia" (CFNCRD/FORDA)

The original objective of the Activity to explore the current status of *Gonystylus* species (non-*Gonystylus bancanus*) in Indonesia through literature review and field survey that were aimed at identifying and collecting current information on the ecological distribution, population, management and conservation of the targeted non-*G. bancanus* species at several chosen sites, as well as an assessment of the current growing stock, population distribution and habitats of non-*G. bancanus* species have been achieved.

Furthermore, the three additional activities by ITTO in January 2010 to conduct further analyses of the genetic relationship between species and in vitro propagation of *Gonystylus* species, develop a guidebook for species identification and holding a training workshop on species identification for field staff, as well as undertake initial establishment of ramin gene pool in Merang Kepahyang (Sembilang National Park, South Sumatra) and the Sebangau National Park, Central Kalimantan have also been achieved.

A number of reports were published, among them, the "Literature review on *Gonystylus* spp. other than *Gonystylus bancanus*. Botany, Ecology and Potency"; "Genetic relationship between species of *Gonystylus* spp."; the "Guidebook for Field Identification of Ramin species (*Gonystylus* spp.) in Indonesia"; the "Evaluation on Species Diversity, Population, Habitat, and Regeneration Status of Selected *Gonystylus* species (*Non–Gonystylus bancanus*)"; and the "Induction of Embryogenic Callus from Leave Parts of Ramin". Currently, an Executive Summary of the Activity is being finalized for publication and dissemination. The project has been completed in August 2010.

NEW ACTIVITY FOR INDONESIA

"Review on Ramin Harvest and Trade: CITES Compliance, Tri-National Task Force on Trade in Ramin, Trade Control and Monitoring" (Forest Protection and Nature Conservation, Indonesia Ministry of Forestry)

Four consultants have been engaged in the Activity to prepare a roadmap for sustainable management and conservation of ramin; review the work of the Tri-national Task Force on Trade in Ramin; study the strengthening CITES trade compliance system through the dissemination of CITES rules and regulation on the listing of ramin and other plant species; and to review trade data collection, monitoring and trade control. The draft technical reports from the four consultants are expected to be available for stakeholder consultations in early October 2010 through, among others, a regional workshop on the future of the Tri-national Task Force on Trade in Ramin; a training workshop on CITES compliance system; and a verification workshop on trade data collection, monitoring and trade control. This Activity is now re-scheduled to be completed in December 2010 instead of February 2011 as originally planned.

Latin America

Brazil

"Bigleaf mahogany (Swietenia macrophylla) in the Brazilian Amazon: long-term studies of population dynamics and regeneration ecology towards sustainable forest management" (IFT/J. Grogan)

This project's objective is to establish a biological foundation for sustainable forest management systems for mahogany based on long-term studies of survival, growth, reproduction, and regeneration by natural populations in primary and logged forests. Project activities during the third quarter of 2010 focused on initiating fieldwork in southeast Pará. Fieldwork began at the principal research site, Marajoara, in mid-August and will continue through November. Mahogany trees and seedlings under study since 1995 will be recensused during this time for survival, diameter and height growth, and fruit production rates.

Other Project activities included continued data management, analysis, and synthesis for publication. A manuscript by Norghauer, Nock, and Grogan, titled 'The importance of tree size and fecundity for

wind dispersal in a threatened tropical tree', was completed and submitted to the scientific journal PLoS Biology. This article reports results from a large-scale study of seed dispersal by mahogany trees at Marajoara in southeast Pará. A second manuscript by Grogan, Schulze, Lentini, Zweede, and Landis, titled 'Managing big-leaf mahogany in natural forests: lessons learned from the ITTO-CITES Timber Project', was submitted for possible publication in the ITTO Tropical Forest Update. A third manuscript by Grogan & Schulze, titled 'The impact of annual and seasonal rainfall patterns on growth and phenology of emergent tree species in southeast Pará, Brazil' is nearing completion and will be submitted to Biotropica in the fall 2010.

Work continued with Middlebury College colleague R. Matthew Landis on manuscripts using a population modeling framework based on 1995–2009 demographic data collected at the Marajoara, Corral Redondo, and Acre-Sena Madureira sites to address basic and applied questions about mahogany population dynamics.

"Ecology and silviculture of mahogany (Swietenia macrophylla King) in the western Brazilian Amazon" (UFRA/FUNPEA)

The Project Ecology and Silviculture of Mahogany (Swietenia macrophylla King) in the Western Brazilian Amazon is being developed in the Sustainable Forest Management Project (PMFS) area of the Batisflor Forest Ltda. company, located in Amazonas State, at the left bank of the Purus River on the border of Acre state. The technical team of the project completed the field survey planned as pre-logging activities, such as demarcation and measurement of permanent plots/ parcels (PP). Field data collection on all individuals, including regeneration, tree seedlings, saplings, young tree and trees of all species has been completed by September.

The implementation of remaining field activities, especially logging, depends fundamentally on the approval of PMFS by the Brazilian Institute of Environment and Renewable Natural Resources (BAMA). Although the sustainable forest management plan had been submitted to IBAMA on January 24, 2010, the management plan has been recently approved by the Brazilian CITES Scientific Committee, on September 29, 2010.



Beginning of *Hypsipyla grandella* infestation after inoculation of fertile egg in mahogany seedlings treated with Ca and Bo in a greenhouse. Photo by: Orlando Ohashi

Bolivia

"Population density and forest harvesting impact on natural regeneration and diameter growth of mara (Swietenia macrophylla)" (MEBCC)

MMAyA and IBIF carried out meeting to define field activities over the next months (October-December). In order to assess current and potential density and population structure in the main eco-regions of natural distribution, the following activities will be carried out: i) Examine current and potential distribution maps to model potential areas of distribution and validate the results of predictive models in the field.; and ii) to determine density and population structure, an inventory (20 x 100 m) along the natural distribution, quantification of number of individuals per hectare, and density of individuals per height class and diameter in different eco-regions will carried out. The sampling will present a combination of conditions (200 parcels x ecoregion), areas: i) without logging ii) with mahogany logging in the past; iii) current logging of other species, iv) with current mahogany logging; v) areas affected by forest fires. In order to study mahogany's natural regeneration, growth and survival under different intensities of timber harvesting and application of silvicultural treatments, the following activities will be conducted: i) Monitor growth and survival of regeneration (4th remeasurement); ii) assess natural regeneration in natural sites and micro-sites in current logging areas; iii) determine the main factors related to mahogany regeneration abundance; iv) evaluate the diameter growth rate of trees under varying logging intensities; v) establish relationships between diameter growth and canopy light availability and vine infestation.

"Management of Hypsipyla grandella in Swietenia macrophylla King Plantations in Pará and São Paulo States, Brazil" (UFRA/FUNPEA)

The management of mahogany drill insect has advanced through the three field experiments and a greenhouse experiment. In Igarapé-Açu, the Colacid formulations 3 and 4, during June 2009 - August 2010, presented a good level of control with average efficiencies 78.79% and 84.87%, respectively, which is close to the results (83.90%) obtained by Ohashi et. al (2002). This control influences in mahogany tree height growth. The analysis showed a significant effect on the interaction "treatment x month"; for instance, in July 2010, the tree heights using Colacid 3 (5.77 m) and Colacid 4 (6.97 m) differed from other treatments. The growth coincides with the use of lifting platform from May 2010, which helped the colacid application.

In Aurora do Pará, the mahogany drill insect control has been more efficient. The treatments T3 and T4 presented control efficiencies of 94% and 100%, respectively, compared with the witness. This high efficiency could be related to average height 1.65 m that make the treatments' application easier, which does not occur in Igarapé-Acú and Sao Jose do Rio Preto, where trees higher than 5m and 8m, respectively, hamper the applications.

Thus, due to uniform forest growth and high tree height (8.26 m) in Sao Jose do Rio Preto, the drill control using paste-like colacid formulation has been ended. In the experimental area, this product has been replaced by Colacid spray formulation from May 2010. The result has shown that this treatment has presented the lowest infestation.

In the greenhouse experiment at the UFRA campus, the evaluation of different levels of calcium and boron to examine mahogany resistance to the drill attack after inoculation of fertile eggs was conducted. The result showed that only one treatment presented low infestation (11.10%); the other treatments presented infestations ranging from 20 to 100%.



Peru

"Evaluation of commercial stocks and strategy for the sustainable management of mahogany/cedar in Peru" (UNALM)

Project final report completed in November 2009 and available on $\ensuremath{\mathrm{ITTO}}$ website.

"Design, validation and adjustment of the methodology for monitoring and periodic evaluation of the plots for characterization of mahogany and cedar populations in Peru" (UNALM)

All activities ended in May 2010. Project final report will be released by the end of October.

Other ITTO-CITES Program Studies

"Market Study of Cedrela odorata in Bolivia, Brazil and Peru"

Mahogany and cedar timber species are listed in CITES Appendices II and III, respectively, considering the high level of international commercial transactions. Preliminary results show that the total imports of mahogany sawnwood in 2001 by the United States and Mexico were 83.3 thousand m3 (99.5% of US), of which 83.7% coming from Bolivia, Brazil and Peru. In the same year, both countries imported 16.3 thousand m3 of sawnwood of Cedrela odorata (57.3% United States and 42.7% Mexico), all of them coming from Bolivia Brazil and Peru. If we consider 83.3 thousand m³ as the projected demand of mahogany for the 2002-2008 period and cedar volumes higher than 16.3 thousand m³ as the contribution of this species to unmet demand for mahogany, there will be an average annual flow of 26.4 thousand m³ of cedar for that period, which represents two thirds of unmet demand. In practice, international trade of these species is undermined by weak institutional capacity and low priority of government unable to cope with informal and illegal forest activities.

"Support Compliance of CITES Convention in Guatemala and Peru: In-country Technical Assistance for the Development of the National Timber Yield Tables for Mahogany (Swietenia macrophylla) Standing Volume & Export Grade Sawnwood"

The preparation of national timber yield tables of volume conversion from log to sawnwood is under development, both in Guatemala and in Peru.

In the Guatemala case, the wood sawing process has been completed and its classification by quality is quite advanced. The information analysis and uploading the information into digital format (database) have started. Based on the information collected, 18 statistical models are planned to be tested to determine the best model to develop the conversion tables. The work is slightly delayed due to some problems with timber companies, but the project is expected to be completed in December 2010.

In the Peruvian case, the field work has been developed in the Madre de Dios region, measuring 51 trees during their logging and sawmilling. Similarly, the work is delayed, however the project is expected to be finalized in December 2010.



Mahogany log volume measurement in Guatemala Photo by: G. Trujillo

RECENT EVENTS

XXIII Brazilian Congress of Entomology

The UFRA team participated in the XXIII Brazilian Congress of Entomology held in Natal, state of Rio Grande do Norte, Brazil on 26-30 September, 2010. Two articles were presented at the Congress: i) "Management of *Hypsipyla grandella* in Aurora in the state of Pará"; and, ii) "Management of Mahogany Drill *Hypsipyla grandella* in São José do Rio Preto in the state of São Paulo". Both articles were prepared by Professor Orlando Ohashi et al., the coordinator of the project on the "Management of *Hypsipyla grandella* in *Swietenia macrophylla* King Plantations in Pará and São Paulo States, Brazil" implemented under the ITTO-CITES Program.

Cameroon

Cameroon hosted the 2nd Africa regional workshop "Ensuring international trade on CITES listing species is non-detrimental to their conservation in Africa" and the First Project Steering Committee Meeting for the project 'Non-detriment findings for *Prunus africana* (Hook. f.) Kalman in Cameroon', from September 29 to October 1, 2010, at the Hotel Seme Beach, Limbé.

The objective of the workshop was to share results and experiences from the Activities implemented under the ITTO-CITES Program in the range States in Africa, importing countries and donors.

UP COMING EVENTS

National Workshop in Malaysia

The government of Malaysia will host a four-day national workshop on "Enforcement Compliance for Trade in Ramin (*Gonystylus* species)" in October 2010. The major objective is to enhance the knowledge of enforcement agencies staff in Malaysia directly or indirectly involved in ramin trade.

Asia Regional Workshop

A three-day regional workshop of the ITTO-CITES Program on ensuring international trade in CITES-listed timber species is consistent with their Sustainable Management and Conservation, will be held in early December, 2010. The objective of the workshop is to share results and experiences from the project activities implemented under the ITTO-CITES Program in Indonesia and Malaysia, including identifying and adapting relevant findings from the Indonesian Activities by Malaysia and vice versa.

LA Regional Workshop in Brazil

The Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) will host the 3rd Latin America regional workshop of the ITTO-CITES Program on ensuring international trade in CITESlisted timber species is consistent with their Sustainable Management and Conservation, on February 14-16, 2011, in Brasília, Brazil. The objective of the workshop is to share results and experiences from the Activities implemented under the ITTO-CITES Program in the range States in Latin America, Bolivia, Brazil and Peru.

CITES Plants Committee Meeting

The Nineteenth Meeting of the CITES Plants Committee will take place from 18-21 April 2011, in Geneva, Switzerland. Amongst relevant topics on timber issues, progress report of the Working Group on the Bigleaf Mahogany and Other Neotropical Timber Species [Decisions 15.91, 15.92 and 14.146 (Rev. CoP15)] and progress report on the joint CITES-ITTO Program will be discussed.

ARTICLE

COMMENTS ON THE FOREST AND WILDLIFE LAW

By Ignacio Lombardi, UNALM

On August 1 2009, Ministry of Agriculture (MINAG) issued Ministerial Resolution No. 0544-2009 to begin process of Forest and Wildlife Law Review, which includes developing a proposal for Forest Law and Regulations, as well as the National Forest Policy. This revision process is under the responsibility of the General Directorate of Forestry and Wildlife (DGFFS) of MINAG, which established a Technical Secretariat to put forward the process.

To make the law more participatory and to gather opinions of a great part of public and private institutions, non-governmental organizations (NGOs), private companies, universities, Native and Rural Communities, and individuals interested in developing the forest sector, the National and Regional Platform has been established for consultation.

After about 5 months, the Technical Secretariat completed its work and the respective projects were made available to the Minister of Agriculture, which with the approval of the Council of Ministers, on June 22 2010 was made available to the Congress for review and approval.

The draft bill has a section of general principles, objectives, scope and definitions. There is a total of six sections divided in titles and chapters as needed and 161 articles, plus complementary provisions, 7 permanent and 15 temporaries.

This draft bill proposes the creation of a National Forest and Wildlife Service (SERFOR), attached to MINAG, directed by a Directive Council chaired by the Executive Director and responsible for managing the forest and wildlife resources. Forest Management Units and Wildlife (Unidades de Gestión Forestal y de Fauna Silvestre-UGFFS) would be established at the local level. The SERFOR regulates access to forest resources, through public tender processes or public auction, all of them with commitments to prepare the general forest management plans and annual operational plans. It requires the concessionaries or native community to make and implement silvicultural plans to ensure forest restoration. It is an obligation of SERFOR to monitor the implementation of forest management and operational plans.

The SERFOR, the CITES Management Authority, is responsible in establishing chains of custody, certifying legal origin of forest products, yield coefficient of timber species on the CITES Appendices.

It also sets export quota for CITES-listed timber species and particularly for mahogany where the quota is established by the Supreme Decree sanctioned by the Ministers of Agriculture and the Environment; that is, the Management and Scientific Authority, respectively.

The Draft Bill on Forestry and Wildlife Law is very similar to the law that currently governs the forest sector, it would only increase regulations, making governmental institution more bureaucratic; this situation can further complicate companies in the forest sector, there is little incentive, but for some groups consider it appropriate, while others have criticized the process alleging that there is a lack of transparency.

The approval process of the law has not been completed yet because it still needs the analysis of the Congress.

PROGRAM MONITORING

In order to increase the ITTO-CITES Program impacts on CITES implementation in the range States, external monitoring has been regularly conducted, including independent European Commission monitoring carried out in mid-2008 and 2009, and an ITTO-funded independent Monitoring Review/ Evaluation of the Program in late 2009 -early 2010.

In addition, annual monitoring of field implementation is conducted in Africa, Asia and Latin America by respective regional coordinators including at least one visit to each activity site each 6 months.

Monitoring Mission in Latin America

In addition to external monitoring, the regional coordinators undertake on-going real time monitoring of all activities. The Deputy Regional Project Coordinator for Latin America carried out a monitoring mission to Bolivia and Brazil, as a part of annual monitoring of field implementation of existing activities under the ITTO-CITES Program. The field monitoring missions were undertaken as follows: i) Bolivia from 7-11 September 2010; and, ii) Brazil from 26-30 September.

Bolivia

In Bolivia, the Deputy Regional Project Coordinator for LA, had a meeting with the government officials in charge of the activity implementation and its related organizations: Vice-Ministry of Environment, Biodiversity, Climate Change and Forest Development (MMAyA); Bolivian Forestry Research Institute (IBIF); the National Institute of Agricultural, Livestock and Forestry Innovation (INIAF); the Authority of Inspection and Social Control of Forests and Lands (ABT). The field visit was led by Mr. Juan Carlos Licona, an IBIF's forester. Overall, the Deputy Regional Coordinator for LA showed concerns on the delay of project implementation caused by governmental bureaucracy in the internal administrative procedures. IBIF, the main project executing agency, said that the delay may be recovered to a great extent through an intensive fieldwork to be conducted in October.

Brazil

In Brazil, the Deputy Regional Project Coordinator for LA, accompanied by the project coordinator, Prof. Paulo Contente of UFRA, visited the project site located in Acre state, where the activities on the ecology and silviculture of mahogany in the Western Brazilian Amazon are undertaken. The overall assessment of activities was satisfactory. Nevertheless, its field activities are behind the schedule due to unfavorable climate conditions and government bureaucracy, which are out of control. The Brazilian CITES committee was impressed with the high-quality of forest management plan.

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