PROGRAM FOR IMPLEMENTING CITES LISTINGS OF TROPICAL TREE SPECIES

Newsletter



ITTO

CITES

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This Newsletter reports on activities under the second phase of the ITTO-CITES Program for Implementing CITES Listings of Tropical Tree Species. Following up on the successful first phase of the Program (2007-2011), this second phase is continuing work for four more years (2012-2015) on the most important CITES-listed tropical tree species in trade. The Program is again majority-funded through a grant from the European Union (through the European Commission), which calls for part of the available funds to be devoted to activities relevant to both the ITTO-CITES Program and the ITTO Thematic Program on Trade and Market Transparency (TMT). The Newsletter is published on a quarterly basis, in English, French and Spanish, and is made available to all Program stakeholders and other individuals interested in the progress of the ITTO-CITES Program. This issue covers a summary of the Program activities during the period June - August 2013.

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

EDITORIAL - THE ITTO-CITES PROGRAM IN AFRICA

The International Tropical Timber Organization (ITTO) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are continuing to assist range states in Africa, Asia and Latin America in developing tools for effective forest regimes that promote and ensure sustainable forest management and trade of products from CITES listed tropical tree species.

In Africa, the first phase of the ITTO-CITES Program (2007 – 2010) assisted countries in the Congo Basin including Cameroon, Congo, and Democratic Republic of Congo in conducting forest inventories, developing management plans, producing non-detriment findings reports, and training control agents in the use of CITES tools.

Under the current second phase of the Program, countries are being assisted in implementing management plans developed in the first phase. The implementation of management plans includes: conducting annual systematic inventories of exploitable trees in production areas (exploitation inventories); establishment of control and monitoring systems; training on sustainable harvest techniques how to harvest the product; and putting in place tracking systems appropriate for each product and for each country.

Developing robust tracking systems is a priority in this phase. Tracking systems will help address concerns about illegal trade in products from listed species in the region. Concerns have been raised recently about possible illegal harvesting of *Prunus africana* bark from production sites in North Kivu, DRC and export of *Pericopsis elata* timber without required non-detriment findings from Congo-Brazzaville. Discussions are underway with partners in Singapore (Double Helix) to put in place tracking systems based on DNA markers for both timber (*Pericopsis elata*) and bark (*Prunus africana*). In addition to this technological solution for selected products/regions, work under phase 2 will also assist range countries in developing simpler tracking systems. Training forest and customs agents in identification of CITES species and products and in control procedures will continue in different countries.

Refining management parameters is another key issue that will be targeted in Africa during this phase. Most of the management parameters (minimum harvest diameters, rotation lengths, growth rates, etc) used until now by range countries are based on historical precedent with little scientific basis. This Program element will benefit from collaboration with partners like Botanic Garden Conservation International (BGCI).

This Newsletter reports on activities under the ITTO-CITES Program assisting African countries with the above items, and others including harmonized regulatory frameworks for aligning forestry and CITES legislation and the work of relevant institutions in relation to forest management and species conservation; comprehensive access to timely and reliable information on timber trade/markets;and

ITTO-CITES Program

The "ITTO-CITES Program for Implementing CITES Listings of Tropical Tree Species" aims to ensure that international trade in CITESlisted tropical tree species is consistent with their sustainable management and conservation. The specific objective of the Program is to assist CITES national authorities and the private sector to meet the requirements for managing and regulating trade in CITES-listed tree species; to provide capacity-building support, and to conduct specific studies where information is lacking so as to develop an enhanced global framework for the collection and analysis of information related to the biology and management of species and trade in tropical forest products. The main species covered to date are Pericopsis elata (afrormosia or assamela), Prunus africana (pygeum) and Diospyros spp. (ebony) of Central Africa and Madagascar; Swietenia macrophylla (bigleaf mahogany), Cedrela odorata and other Cedrela spp. (cedro) in Latin America; as well as Dalbergia spp. (rosewood) in both Africa and Latin America. Those covered in Southeast Asia are Gonystylus spp. (ramin) and Aquilaria spp./Gyrinops spp. (agarwood).

The main range States exporting significant volumes of these species are Cameroon, Democratic Republic of Congo, Madagascar and Republic of Congo in Africa; Indonesia and Malaysia in Asia; and Bolivia, Brazil, Guatemala, Honduras, Paraguay and Peru in Latin America. The direct beneficiaries of this Program are public authorities and private sector operators in the forest sector in the range States. The indirect beneficiaries are other Parties to CITES and members of ITTO that trade in these species, who will benefit through capacity building and awareness raising programs.

Editorial (cont'd from page 1)

building capacities required to monitor existing tropical timber markets and develop new markets, including the trade in tropical timber from sustainably managed and legally harvested sources.

Range states in Africa thank ITTO, CITES and their partners including the EC and other donors, for assisting them in lifting bans and promoting sustainable trade in products from CITES listed tree species through this Program.

Jean Lagarde Betti, Regional Coordinator for Africa

Program funding

Phase II of the Program has an approved budget of nearly \$10 million and has so far received pledges of funding from the European Union (through the European Commission - EC), United States of America, Germany, Norway, the Netherlands and the private sector. The second pre-financing of EUR 1.2 million under the ITTO-EC contract (that provides for two-thirds of the Phase II budget) was received from the European Commission in April 2013. The United States of America pledged USD 180,000.00 and the Netherlands USD 70,000.00 during the 48th ITTC Session in November 2012; these funds were also made available during the first half of 2013. ITTO will encourage donors to continue providing funds to meet the co-financing provisions of the ITTO-EC contract since requests for support under the Program continue to exceed available resources.

Activity approvals and agreements

Under Phase II of the Program, ITTO has, in consultation with the CITES Secretariat, approved seven new Activities in Africa, eight in Asia and two in Latin America; while one Activity in Africa and two Activities in Latin America approved during Phase I of the ITTO-CITES Program were extended and continued to be implemented under Phase II of the Program. Of the 20 Activities approved or extended under Phase II, ITTO has finalized agreements to facilitate implementation of the 19 Activities listed in the next section. The agreement for the remaining approved Activity on "Confirmatory assessment of forest inventories for cedar and bigleaf mahogany" has recently been concluded with Peru, and a progress report will be reported in the next issue of this Newsletter once implementation has begun. In addition to the 20 Activities approved or extended under Phase II of the Program, an additional 17 Activity proposals (4 in Africa, 6 in Asia and 7 in Latin America) submitted to ITTO are pending approval and will be considered for funding (and reported in this newsletter) when Program finances allow.

Since the inception of Phase II of the ITTO-CITES Program, ITTO has signed agreements with:

Cameroon

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

Democratic Republic of Congo

- ICCN (Institut Congolais pour la Conservation de la Nature) - 1 activity with extension
- DCN (Direction pour la Conservation de la Nature) 1 activity

Madagascar

• Ministry of Environment and Forests, Faculty of Science, University of Antananarivo – 1 activity

Republic of Congo

CNIAF (Centre National d'Inventaire et d'Aménagement des Ressources Forestières et Fauniques) - 2 activities

Indonesia

 Government of Indonesia and the Forestry Research and Development Agency (FORDA) - 2 activities • Government of Indonesia and the Directorate of Biodiversity Conservation - 2 activities

Malaysia

 Ministry of Natural Resources and Environment Malaysia (NRE) - 4 activities (2 activities implemented by the Sarawak Forestry Corporation and the Forest Department Sarawak; and 2 activities by the Forest Research Institute Malaysia (FRIM)

Brazil

- FUNPEA (Fundação de Apoio à Pesquisa, Ensino e Extensão em Ciências Agrárias) - 1 activity with extensión
- IFT (Instituto Floresta Tropical)/J. Grogan - 1 activity with extension

Peru

• UNALM (Universidad Nacional Agraria La Molina) - 2 activities

Information about each activity (country, Activity document, executing and implementing agency, final reports, other outputs, etc.) can be found on the Program website (http://www. itto.int/cites_programme). The following section provides brief descriptions and progress reports for Activities undertaken since the inception of Phase II of the Program until September 2013. Activities pending funding will be reviewed in the fourth quarter of 2013 with a view to making the most effective use of available Program resources.

Activity progress reports

Africa Cameroon

Settlement of a monitoring system for logging and processing of assamela and training control agents on the use of CITES tools and procedures in Cameroon

The Activity aims to develop an effective monitoring system for logging, processing and trade in Assamela products, as well as to train control agents in forest control and the use of CITES tools. It started in September 2012 and is now re-scheduled for completion in February 2014 instead of August 2013. The Agence Nationale d'Appui au Développement Forestier (ANAFOR), the National Forestry Agency implementing the Activity, has organized two training workshops in the East and the Littoral regions of Cameroon. Each workshop was organized in four sessions, namely, the opening ceremony, presentation of the workshop program and the Activity, a training session, and a field trip. The first training workshop was organized in Bertoua, the capital of the East region of Cameroon, from 10-14 June 2013, at the Christiana Hotel. The workshop aim was to train forest officers from both the public and private sectors on CITES regulations and the identification of the wood of Assamela (Pericopsis elata). The field trip was organized at Batouri, the capital of the Kadey Division, located at about 90 km from Bertoua. Participants visited the factory of the STBK timber company and had the opportunity to learn how the company processes the Assamela wood. The second workshop was organized in Douala from 17-20 June 2013 at the Hotel La Falaise. The workshop aimed to train forest officers and customs agents in understanding the CITES convention and in conducting numerical identification of the wood of Assamela. Participants undertook a field trip on 20 June to the Douala port to observe the stock of Assamela wood and to familiarize themselves with the procedures used to export the wood of Assamela from Cameroon. Participants in the workshops recommended to (i) replicate the workshops in other regions; (ii) extend the workshops to other exported timbers which were recommended specifically by customs agents; and (iii) provide participants with relevant and useful materials to ease the identification and control of Assamela wood in the supply chains and at exit points. Based on the work of the first recruited expert on the analysis of the current monitoring system, the second recruited expert in charge of developing the database for monitoring Assamela from the forest till the points of export has recently submitted his report to ANAFOR. On 29 July 2013, ANAFOR sent progress reports to ITTO and

requested the disbursement of the second installment of funds to complete the Activity. Due to the delay encountered, the Regional Coordinator for Africa undertook a two-day monitoring mission to the ANAFOR office at Yaoundé from 5-6 August 2013. The monitoring mission, while acknowledging the implementation of the different specific activities of the Activity by ANAFOR, evaluated the two main functions of the Agency, namely, coordination and technical management. It was observed that the delay in the implementation of the Activity was mainly due to the new complex financing procedures required in Cameroon by the Ministry of the Economy and Finances. The mission also provided recommendations to improve the report on the development of the database for monitoring Assamela for export submitted by the second recruited expert.

Based on the recommendations of the mission, ANAFOR organized the second National Technical Committee meeting on 22 August 2013. The meeting recommended to (i) revise the reports on the Activity cash flow and financial statements; (ii) complete the study on the database; (iii) request the extension of the Activity for at least six months; and (iv) request reallocation of selected budget lines to ensure the successful completion of the Activity by February 2014.

Law enforcement and management of Pericopsis elata in production forests in Cameroon

The Activity is a continuation of the activity that assisted Cameroon to develop its first non-detriment findings (NDF) report on Pericopsis elata in production forests under Phase I of the ITTO-CITES Program. It was about to commence implementation in September 2013 at the time of preparation of this Newsletter. The Activity aims to implement the main recommendations outlined in the NDF report. The expected outputs of the Activity will result in (i) analysis of research results; (ii) silvicultural operations in forest concessions well promoted; and (iii) tools required for more effective implementation of the CITES requirements in Cameroon well developed.

Sustainable management of Pericopsis elata towards the implementation of the simple management plan of the Bidou II plantation in the Kienké South Forest Reserve, Cameroon

The Activity also commenced implementation in September 2013 at the time of preparation of this Newsletter. The aim of the Activity is to implement the simple management plan of Bidou Il plantation of Pericopsis elata, based in the south region of Cameroon, which was prepared during Phase I of the ITTO-CITES Program. The expected outputs of the Activity will result in (i) practices of silvicultural operations realized in the Bidou plantation; (ii) seeds and seedlings required to develop new plantations produced; (iii) new plantations of Pericopsis elata established; and (iv) ecological, biological and silvicultural knowledge on P. elata improved.

Republic of Congo

Dissemination of the CITES convention and its implementation texts in Republic of Congo

The Activity started in October 2012 and was completed in June 2013. It was implemented by the National Centre for Inventories and Management of Flora and Wildlife Resources (CNIAF) in response to the questions



Training forest agents in CITES regulations and the identification of CITES products, Bertoua, Cameroon, 10-14 June 2013. Photo: Nzié Brigitte

raised during Phase I of the ITTO-CITES Program conducted in the Tala Tala Forest Management Unit in the North Congo (see NDF report for *Pericopsis elata* in Congo on Program website). The specific objectives were to (i) train control agents on the verification of compliance of CITES permits; (ii) promote use of the "CITESWOOD-ID" tool; and (iii) disseminate relevant CITES documents in the country.

The first workshop was organized from 7-8 December 2012 at Ouesso, the provincial capital of the Sangha Division in North Congo. It trained forest officers, logging associations' agents, customers, and other groups on the CITES texts, as well as the CITES implementing laws and regulations in Congo.

The second workshop was organized at the Hotel Sapelli from 26-27 June 2013 in Pokola, another city in the North Congo, within the CIB-OLAM forest concession. It trained forest officers from both the public and private sectors, and customs agents in the identification of P. elata wood. The workshop was organized in three sessions, namely, the opening ceremony, presentation of the workshop program and the Activity, and a training session. An international expert from the Democratic Republic of Congo was engaged to lead the workshop. He trained participants on the identification of the wood of P. elata using the identification keys developed by Canadian and German researchers. He highlighted the distinction to be made between Milicia excelsa (Iroko) and *P. elata* wood as people are often confused in the identification of the two species. At the conclusion of the workshop, participants presented three main recommendations, namely, (i) replication of the training workshop to allow more participants to benefit; (ii) acquisition of consolidated materials to ease the identification of P. elata timber; and (iii) development of an effective tracking system for P. elata products for Congo.

Promotion of the silviculture of Pericopsis elata in the North Congo

The Activity was commencing implementation in September 2013 at the time of preparing this Newsletter. The aim of the Activity is to implement the main recommendations outlined in the non-detriment findings (NDF) report on Pericopsis elata in north Congo that was prepared during Phase I of the ITTO-CITES Program. The expected outputs of the Activity will result in (i) biological and ecological data on *P. elata* collected and analyzed; (ii) silvicultural operations well promoted in forest concessions located in north Congo; and (iii) results of the Activity published and disseminated.

Democratic Republic of Congo

Non-detriment findings for Prunus africana (Hook.f.) Kalman in North and South Kivu, Democratic Republic of Congo

The Activity started in March 2011 under Phase 1 of the ITTO-CITES Program and is now re-scheduled for completion in February 2014. The Activity continues to encounter many problems in its implementation, namely, the instability/insecurity in the Prunus production sites due the presence of many rebel groups, and the long distance that separates Kinshasa, the headquarters of the implementing agency (the Institut Congolais pour la Conservation de la Nature (ICCN)), and the production sites in the North and South Kivu. Nevertheless, a GIS specialist was engaged to assist ICCN in (i) drafting the simple management plans for Ibathaama and Mwenda, the first two production sites assessed in the North Kivu; (ii) delineating the first annual plots in each inventoried site as a first step in developing a timber tracking system; and (iii) formulating a sampling design for extending management inventories to additional production sites in South Kivu. For the extension of the Prunus inventories it is clear that the problem of insecurity is still important in the two Kivu provinces (North and South). But, the situation is more critical in North Kivu. However, Prunus inventories could be extended to the Kahuzi Biega National Park, a park located at about 20 km from Bukavu, the provincial capital of South Kivu; and also to the Mombassa territory located in the "province Orientale". These areas are deemed to be secure at the moment.

The Regional Coordinator for Africa undertook a mission to the DRC from 28 August to 2 September 2013 to monitor the activities undertaken on *Prunus africana*. Based on the delay encountered in the implementation of the Activity and the requests received from the private sector that provided funding for its implementation, he suggested that besides the inventories being scheduled in the Kahuzi Biega National



Training forest and customs agents in the identification of *Pericopsis elata* wood in Pokola, Republic of Congo, 26-27 June 2013.

Photo: Banzouzi Jean Claude

Park, ICCN should train private companies in conducting *Prunus* inventories in areas that they consider secure with their own workers. ICCN could then play a role in controlling and approving reports submitted by private companies.

The Regional Coordinator for Africa has also initiated discussions with Double Helix Tracking Technologies Pte. Ltd. because of the concerns of illegal harvesting of *P. africana* barks from the previous production sites inventoried in North Kivu, and also the seizure of illegal wood of *P. elata* in Belgium which was harvested outside the Forest Management Units inventoried and mapped during the Phase I of the ITTO-CITES Program in the Republic of Congo.

Elaboration of a non-detriment finding for Pericopsis elata in the Democratic Republic of Congo

The Activity was commencing implementation in September 2013 at the time of preparing this Newsletter. It aims to collect data on the state of Pericopsis elata in the forest concessions of the Democratic Republic of Congo (DRC). It will include collection of data on phenology, status and stocking, and processing and recovery rate, as well as activities to promote sound silvicultural practices for the species. At the completion of the Activity, the expected outputs are (i) report on the production, processing, and trade in P. elata in DRC; (ii) status and stocking of P. elata in forest concessions; (iii) processing and recovery rate, as well as sustainable export quota; (iv) information on the biology, ecology and the minimum exploitable diameter; (v) implementation of the CITES provisions and the European Union Timber Regulation, as well as putting in place an effective tracking system to better control *P. elata* products from DRC; (vi) silvicultural practices of P. elata promoted in forest concessions; and (vii) non-detriment findings report and Activity results published and disseminated.

Madagascar

Provision of taxonomic data and development/validation of methods for the sustainable management of Madagascar's valuable timber species

The 15-month Activity started in July 2012 with Plant Biology and Ecology Department, Science Faculty, Antananarivo University (DBEV) (CITES Scientific Authority for Plants) as executing agency. The main objectives of the Activity are: (i) provision of taxonomic data for *Dalbergia* and *Diospyros* species from Madagascar; and (ii) conception, validation and development of quantification methodologies for valuable timber species through the combined use of remotesensing imagery analysis and ecology and flora-related field observations. A specific objective of the activity is to provide information to support Appendix II listing proposals for these species.

The executing agency has undertaken the following activities since the last progress report:

- "Species distribution accounts" for each species of both genus, including distribution maps were produced
- The Conservation status of species meeting the minimum diameter cutting limit according to IUCN was established
- The shortlist of Madagascar's *Diospyros* and *Dalbergia* species meeting the minimum diameter cutting limit was produced
- The list of identification materials, including botanical samples (collection of plant specimens and timber samples representative of both released genus species) was produced
- The taxonomic position of Madagascar's *Diospyros ferrea* in relation to possible conspecific populations throughout the Indian sub-continent and Eastern Africa was established
- Inventory materials, satellite images and processing software were acquired
- The potential in harvestable valuable timber was identified for 4 sites
- The potential regeneration of valuable timber was identified for 4 sites
- The final maps of vegetation units and/or valuable timber population and stands for 4 sites were produced
- Draft maps of vegetation units and/or valuable timber population and stands for 7 sites yet to be visited were produce
- Identification criteria for valuable timber species and/or population and/or stands were defined and validated
- Potential in harvestable valuable timber in each vegetation unit was determined
- Potential in valuable timber regeneration in each vegetation unit was determined
- Quantitative data on Madagascar's valuable timber volume which was exported or traded in the local market were collected

As noted in the last newsletter, results of this Activity provided scientific evidence supporting the listing of Madagascar's valuable timber species in CITES Appendix II. At CITES COP 16 in March 2013, 48 *Dalbergia* species and 85 *Diospyros* species were accepted and listed in CITES Appendix II. A work plan for implementing these listings was also approved and work under this Activity as well as possible future assistance under the ITTO-CITES Program will help to implement this work plan.

Current obstacles to completing the Activity are:

 (i) natural disasters such as cyclones together with flooding continue to cause difficulties to access inventory areas, in particular during the rainy season;

(ii) the lack of high-resolution satellite
imagery and the significant cloud cover at
the time of photo capture have led to a major
impediment for project implementation.
Three high resolution image processing
techniques have been tested to resolve this:
"monitored", "unmonitored" and "objectoriented". Following several tests, the
"object-oriented" processing technique has
been deemed the most appropriate;

(iii) throughout the country illegal logging within Protected Areas limits access to some sites due to insecurity; and

(iv) the political situation in the country has caused insecurity throughout the island - an impediment for project implementation. Access to some inventory areas now entails considerable risk for the security of project scientific personnel. Obtaining an authorization for surveying operations within Protected Areas is a lengthy administrative process (between 2 and 3 months), and the delays involved disrupt the planned schedule.

Despite these difficulties, the executing agency has made good progress and expects to complete remaining project activities by the end of 2013. Remaining activities are:

- Identification of harvestable valuable timber potential and regeneration potential for 7 additional sites;
- Production of final maps for vegetation units and/or valuable timber stands and/or population for 7 additional sites;
- Extrapolation of results to various vegetation units;
- Collection of quantitative data on Madagascar's valuable timber volume which was exported or traded in the local market; and
- Production of final report

Asia

Indonesia

The assessment of ramin plantation requirement and the establishment of ramin genetic resources conservation gardens

The Activity started implementation in September 2012 and is now re-scheduled to be completed in December 2013 instead of October 2013. The successful completion of the Activity will contribute to the enhancement of recovery of *Gonystylus bancanus* (ramin) population and habitats, and the conservation of ramin plant genetic resources in Sumatra and Kalimantan in Indonesia. Currently, the identification of degraded and deforested sites for ramin plantation in Sumatra and Kalimantan has been completed and reports are being prepared. A national workshop to determine plantation schemes and institutions responsible for their future maintenance is planned to be held in Bogor, Indonesia on 12 September 2013.

To date, a total of 1047 ramin cuttings comprising 896 cuttings from Tumbang Nusa Hedge Orchard in Central Kalimantan and 151 cuttings from the Forest District of Ogan Komering Ilir (OKI), South Sumatra were transfered to OKI. An estimated 238 rooted shoot and stem cuttings had been field planted in the Ramin Conservation Garden in Kedaton, South Sumatra. On average, 70% of the planted seedlings and rooted cuttings survived and are currently intensively managed for the production of future shoot and stem cuttings. Training of nursery technicians from the Center for Seed Production of South Sumatra on vegetative propagation techniques was also conducted. Concurrently, 200 stem cuttings from OKI were planted in the Sukomoro Permanent nursery located near Palembang to test the growth of the cuttings. The last evaluation showed poor growth (low rooting percentage) of the cuttings. Therefore, more training of personnel and further testing of the cuttings will be conducted before the completion of the Activity in December 2013.

Cooperation in the mass propogation of ramin planting materials between the Forestry Research and Development Agency (FORDA) and the Centers for Seed Production (BPTH) of South Sumatra and South Kalimantan had been formalized. This included the establishment of hedge orchards and genepool, the production of rooted cuttings, and the certification of seed sources. The Regional Research Center (BPK) of South Kalimantan had also collected wildlings of ramin to replenish the hedge orchard of Tumbang Nusa using its own budget as part of sustainablility of the Activity. In addition, the existing shaded Hedge Orchard is also being expanded to grow more stockplants from the 1500 to 2000 wildlings that were collected.

Capacity building on seedling propagation techniques and awareness raising on CITES implementation and ramin roadmap

The Activity commenced implementation in September 2013 and is expected to be completed in June 2014. The main objective of the Activity is to contribute to the enhancement of ramin plantation and conservation through capacity building and awareness raising activities on vegetative propagation techniques, CITES implementation and the wider dissemination of the Ramin NDF Guideline and the Ramin Roadmap which were developed during Phase I of the ITTO-CITES Program. The expected outputs are (i) improved capacity on ramin vegetative propagation techniques; (ii) improved capacity and understanding of the CITES rules and regulation on ramin; and (iii) wider dissemination of the Ramin NDF Guideline and the Ramin Roadmap.

The primary beneficiaries of the Activity will be the Ministry of Forestry of Indonesia, the CITES Scientific and Management Authorities of Indonesia, research institutions, universities, forest concessionaires, port officials, plant quarantine personnel, and others who are involved in export supervision and monitoring.

Managing agarwood plantation in Indonesia

The Activity commenced implementation in September 2013 and is expected to be completed in June 2014. It aims to contribute to the sound management of planted agarwood from establishment to production, and trade, including artificially innoculated agarwood. The two main outputs envisaged from the Activity are: (i) data on plantations, agarwood production and its quality from planted species; and (ii) a proposed national policy on agarwood plantations and production, including market potential and trade.

At the completion of the Activity, it is expected that the extent of plantations for the production of agarwood and the estimated production level together with its quality will be documented. A registration mechanism for production and trade of agarwood will also be developed. The Activity will facilitate discussions and stakeholder consultations on the required strategy and policy for agarwood plantation establishment, including production and trade regulations for agarwood from both natural and planted forests in Indonesia.

Promoting conservation of plant genetic resources of Aquilaria and Gyrinops species in Indonesia

The Activity commenced implementation in September 2013 and is expected to be completed in June 2014. The objective of the Activity is to explore and obtain information on the current status of *Aquilaria* and *Gyrinops* species in Indonesia, with specific reference to their taxonomy, population and conservation status, and to promote initial establishment of natural genepools of selected species in specific and secure areas. The required data and information will be obtained through literature review, workshops and field exploration in selected representative areas. The expected outputs are (i) knowledge of the taxonomical and population status of *Aquilaria* and *Gyrynops* species; and (ii) the initial establishment of genepools of selected *Aquilaria* and *Gyrinops* species.

The envisaged situation at the completion of the Activity is that the current status of the species within the genera Aquilaria and *Gyrinops* with respect to their species interpretation (taxanomy), population and conservation status will be better understood. In addition, by obtaining sufficient scientific information on each species, appropriate treatments for conservation purposes could then be executed more effectively and the necessity for genepool establishment will receive stronger scientific and technical justifications.

Malaysia

In vitro propagation of Gonystylus bancanus (ramin) in Sarawak

The Activity started implementation in October 2012 and is expected to be completed in September 2013. It aims to establish effective protocols for the axenic (contamination-free) culture establishment of Gonystylus bancanus using field-grown planting materials, and protocols for in vitro regeneration of G. bancanus using axenic explants. It will contribute to the health and survival of ramin populations in the wild. Young shoots and branches were collected every two weeks from the Lingga water catchment in Sri Aman. The young shoots were used for tissue culture work whereas the branches were used for cuttings to induce new bud growth. A field trip to Loagan Bunut was also carried out to collect additional samples, while new bending of ramin saplings was conducted to induce epicormic shoots.

In determining the optimum media for axenic culture establishment, explants were obtained directly from the field from the bent saplings as well as the induced new shoots from cuttings, branches and wildings in the green house. There were three types of explants, namely, nodal, shoot-tip and lamina. The axenic explants obtained were cultured on three different media, namely, Murashige and Skoog Medium (MS), Woody Plant Medium (WPM), and the newly formulated basal medium specifically designed for ramin (RAM). The surface sterilized explants on RAM were observed for their level of contamination without the incorporation of biocide and antibiotic. Based on the observation, RAM seems better for explant growth.

For direct organogenesis study, axenic nodal and shoot-tip explants obtained from induced epicormic shoots of bent saplings, as well as new buds sprouted from stem cuttings were used. They were transferred to basal medium incorporated with cytokinin in combination with auxin to boost growth, and although the petioles wilted, new buds had sprouted. In somatic embryogenesis, the induced calli were transferred to basal media with new formulation of cytokinin and auxin, such as 2,4D and naphthalene acetic acid (NAA), for further growth. These calli were transferred to fresh media frequently and kept in the dark. In the case of indirect organogenesis, the induced calli were transferred to low cytokinin and auxin for proliferation where frequent maintenance was carried out. Leaf samples were also used for the study of somatic embryogenesis and indirect organogenesis.

Use of DNA for identification of Gonystylus species and timber geographical origin in Sarawak

The Activity started implementation in October 2012 and is expected to be completed in October 2013. It aims to develop a molecular database of ramin for the identification of the species and its geographical origin in Sarawak, and a protocol for extracting DNA from ramin timber. The Activity completed identifying the distribution of ramin in Sarawak based on information in the Sarawak Herbarium and the BRAHMS database. A total of 478 leaves and wood samples from 10 locations were collected. The collected leaf samples were preserved in NaClhexadecyltrimethylammonium bromide (CTAB) solution and silica gel, while wood samples were preserved in NACL-CTAB, silica gel, absolute ethanol, oven-dry and air-dry. A total of 278 samples were extracted for DNA using the modified CTAB method; while 194 samples were purified using the High Pure Polymerase Chain Reaction (PCR) template preparation kit (Roche) and quantified using the Nanodrop spectrophotometer. The quantified DNA was diluted to a concentration that is optimum for PCR amplification. It was observed that DNA with high polysaccharide contamination produced large amount of precipitation after adding isopropanol which caused difficulty for the process. Hence, a smaller amount of extracted DNA was used for purification.

The DNA extraction protocol for wood samples was completed through the optimization and modification of the protocol for leaf extraction. Using this protocol, experiment to extract DNA from wood (inner bark and sapwood) samples in various preservation methods for up to two months was carried out. It was observed that in agarose gel, oven-dried samples gave no DNA band, while the intensity of DNA band of inner bark and sapwood samples preserved in NaCl-CTAB were greatly decreased in the second month.



Bending of ramin sapling to induce epicormic shoots, Sarawak, Malaysia. Photo: Linna Chieng

With the completion of the listing of microsatellite markers and chloroplast DNA (cpDNA) primers for screening, the amplification of leaf DNA using two cpDNA primers was successfully carried out for 13 different species. Another eight cpDNA primers and 2 nucleus DNA (ncDNA) primers were also tested on the amplification of leaf DNA. Only 3 of cpDNA and 1 ncDNA primers showed strong product band. These primers successfully amplified 1 individual each from 15 species found. Another 4 primers which showed high reproducibility and polymorphism from the Forest Research Institute Malaysia (FRIM) were also used in PCR amplification.

In addition, sequencing was done on 15 samples from different species amplified by (i) rpoB; (ii) trnH-psbA; (iii) rbcL; (iv) rpoC1; (v) ITS2; (vi) ccmp2; (vii) ccmp6; (viii) trnF(F)+trnE(R); and (ix) trnL. It was found that fragments amplified using trnH-psbA and ITS2 have the potential for species identification. Furthermore, amplicons of primer sets trnF(F)+trnE(R) and trnL were found to have several haplotypes which also have potential for species identification.

Reproductive and genetic studies towards the conservation and management of Aquilaria malaccensis in Peninsular Malaysia

The Activity, which commenced implementation in June 2013, will complement the work carried out between 2007 and 2008 under the project on "In vitro technology for mass propagation and phytochemical analysis of *Aquilaria malaccensis* and *Aquilaria hirta* (endangered Gaharu producing species)", and the "Conservation studies and the development of DNA microsatellite markers on *Aquilaria malaccensis* in Peninsular Malaysia" that was undertaken between 2011 and 2012, both projects being funded by the Government of Malaysia.

The Activity aims to (i) document the flowering phenology and reproductive behavior of *A. malaccensis*; (ii) develop DNA profiling databases of *A. malaccensis* in Peninsular Malaysia; and (iii) develop a conservation action plan to reduce harvesting pressures on wild populations for the agarwood resin. At the completion of the Activity in May 2015, the expected outputs are (i) reproductive information of *A. malaccensis*; (ii) ecological genetic information for the preparation of a conservation action plan for *A. malaccensis* in Peninsular Malaysia; (iii) DNA profiling databases of *A. malaccensis* in Peninsular Malaysia for timber tracking and forensic applications; and (iv) a conservation action plan to reduce harvesting pressures on wild populations for the agarwood resin.

The information generated from the Activity could be used for the preparation of a NDF for *A. malaccensis*. Furthermore, the availability of DNA profiling databases of *A. malaccensis* will enhance the capacity of enforcement officers in the conviction of illegal harvesters under Section 15 of the National Forestry Act 1984 (amended 1993), and this will significantly improve Malaysia's tracking and tracing system. Such databases could also be used for rapid species authentication and to certify whether an *Aquilaria* product is genuinely derived from planted or sustainably managed forests.

To date a total of 80 samples of *A*. *malaccensis* have been collected from the Gunung Jerai Forest Reserves (FR), the Bukit Perangin FR, the Gunung Bongsu FR and the Gunung Inas FR in the state of Kedah, while two additional study sites have been identified in the states of Perak and the Penang Island.

Development of an information database for the conservation and sustainable use of Gonystylus bancanus (ramin) and Aquilaria malaccensis (karas) in Malaysia

The Activity has commenced implementation in June 2013 and is expected to be completed in March 2015. The main objective of the Activity is to develop a web-based information system of ramin and karas in Malaysia for management and conservation purposes (MyCITES). The expected outputs of the Activity are information on (i) ramin and karas distributions in Malaysia; (ii) research and development of ramin and karas in Malaysia; (iii) timber trade and production of ramin and karas in Malaysia; (iv) Malaysia's policy and management practices of ramin and karas; and (v) a comprehensive web-based information system of ramin and karas in Malaysia that contains all the outputs from (i) to (iv).

The development of MyCITES will be based on an interactive web-based information system to enable the sharing of information and spatial data on ramin and karas in Malaysia using a combination of Geographic Information System (GIS) software with Open Source to generate GIS Base Enterprise architecture on-line and real time. As a one-stop information centre for ramin and karas, this web-based system will be used by interested stakeholders as a main source for gathering the latest information on ramin and karas tree species for the purpose of learning and undertaking monitoring, conservation and preservation activities of these species in Malaysia. It will also be used as a platform to disseminate the outcomes and findings of the previous Activities implemented in Malaysia under Phase I of the ITTO-CITES Program.

Collection of non-spatial information of ramin and karas from books, relevant journals and publications, as well as discussions with the FRIM Information & Communication Technology (ICT) Division to get an overview on the development of the database and website has already been initiated.

Latin America Brazil

Big-leaf mahogany (Swietenia macrophylla) in the Brazilian Amazon: Long-term studies of population dynamics and regeneration ecology towards sustainable forest management

Since ITTO-CITES Newsletter 2-3 (June 2013), preparations have been made for the 2013 field season at two long-term research sites in southeast Pará, Brazil. With generous permission from the principal site's owner, Sr. Claudiomar Vicente Kehrnvald, field activities started in the first week of September at Marajoara and Corral Redondo. During September and October more than 400 mahogany trees of diameter greater than 20 cm in a total area of 2750 ha will be re-visited and measured for diameter growth and fruit production. This year's fieldwork marks the 18th consecutive annual measurement since the activity started in 1995, originally with support from the ITTO Fellowship Programme. These are the most comprehensive and longest-term data available describing mahogany adult survival, growth, and flowering and fruit production under natural forest conditions. Without persistent annual efforts to obtain these data, many of the Activity's main outputs, including the Big-Leaf Mahogany Growth & Yield Model (http://www. swietking.org/model-applet.html), would not have been possible.

Fieldwork will also include re-measurement of several thousand naturally occurring and experimental seedlings out-planted from 1995 to 1997 for their survival rate and growth. Several other key Amazonian timber species have also been under study at Marajoara since 1997, including jatobá (*Hymenaea courbaril*), fava de bolota (*Parkia pendula*), and copaiba (*Copaifera duckei*). In addition, new research initiatives investigating site and mahogany population histories through the use of dendrochronological techniques are planned.

A training workshop on how to use and adapt the Big-Leaf Mahogany Growth & Yield Model to local conditions in South and Central America continues to be planned. Workshop materials will emphasize using data from local populations to project population dynamics and sawn timber production over multiple cutting cycles. The venue has yet to be finalized.

Updates to the 'Big-Leaf Mahogany in Brazil and South America' website (http://www. swietking.org/index.html) continue to be undertaken, and several new postings have also been made under the 'Management' section (http://www.swietking.org/ management.html), which will be completed in the coming months. The status of several mahogany-related research articles under preparation or review at scientific journals remains unchanged as reported in the previous Newsletter.

Ecology and silviculture of mahogany (Swietenia macrophylla King) in the western Brazilian Amazon

The Activity started in March 2009 under Phase I of the Program and was extended under Phase II due to problems in completing the field work which has now been completed in December 2012. It aimed to (i) establish best silvicultural practices for sustainable management of mahogany in natural forests of the Brazilian Amazon; and (ii) contribute to the improvement of government regulations concerning forest management in Brazilian mahogany forests (Normative Instruction No. 7, of 22 August 2003). The final report of the Activity was submitted in July 2013. Considering that the data were collected immediately after logging, the report noted that the analyses of the post-harvesting Phase or Phase II of the Activity would not be able to fully reflect the dynamics (recruitment, mortality and growth) of Swietenia macrophylla (mahogany), but would only show the impacts of logging on the pre-existing stocks of natural regeneration.

Among the most pertinent findings of the Activity are:

- seed dispersal proved to be efficient, because on average there was dispersal in all distances evaluated (10 m to 200 m);
- (ii) although mahogany seed dispersal is efficient, high mortality rates were observed due to a number of limiting factors, such as the attack by pests, soil moisture level and especially the occurrence of vines (lianas) and bamboo;

- (iii) height growth of seedlings was extremely vigorous during its initial stages. Growth rates ranged from 56% to 68% with a mean of 33% after logging. Higher growth rates could be expected if bamboo (*Guadua* spp.) is controlled as it restricted the growth of mahogany saplings and seedlings;
- (iv) management of mahogany in the Western region of the Brazilian Amazon in the State of Acre, Brazil should be undertaken together with enrichment planting in logging gaps, and along roads and logging trails, preferably using fertilizers with frequent control of the bamboo vegetation, as well as the control of mahogany shoot borer attack by *Hypsipyla grandella* Zeller. This will require, however, economic evaluation of its feasibility;
- (v) silviculture of mahogany forests in Brazil should consider, in addition to natural regeneration, the control of bamboo and in undertaking enrichment planting in gaps and other open sites, otherwise, the economic future of wood production of mahogany in the Brazilian Amazon will only be feasible in reforestation areas and/or in agroforestry systems; and
- (vi) to ensure the implementation of silvicultural activities during management cycles, the two forest management regulations for tropical rain forests in the Brazilian Amazon (Normative Instruction No. 5 which regulates forest management in non-mahogany forests and Normative Instruction No. 7) should be revised and consolidated to enhance the economic viability of forest management, without jeopardizing species conservation.

Peru

Assessment of regeneration of natural big-leaf mahogany and cedar populations in Peru

The Activity aims to evaluate the regeneration of mahogany (*Swietenia macrophylla*) and cedar (*Cedrela* spp.) species in the permanent production forest areas where logging of these species are taking place (South Amazonian region of the country) through field activity. The study team worked in three field sites where a total of 125 plots of seed trees were evaluated, with 59 mahogany plots and 66 cedar plots. The information is being processed and analyzed and the results will be presented in the final report of the Activity expected by the end of 2013.

One of the outputs obtained is an updated database including information collected from Annual Operating Plans of the Department of Madre de Dios. This has allowed for the generation of location maps



Natural regeneration of *Swietenia* macrophylla in Peru. Photo: UNALM-ITTO-CITES project team

of mahogany and cedar seed trees by the Department and the finding that the number of seed trees totaled 2061 trees, with 572 mahogany trees and 1489 cedar trees. Another output of the Activity is a manual for the assessment of seed trees and natural regeneration of mahogany and cedar for commercial production. The manual has been validated and used in the three field sites located in Madre de Dios. In addition, the manual had also been shared with officials of the Ministry of Environment and the Ministry of Agriculture, as well as with the authorities and professionals of Madre de Dios. The manual will soon be published with the support of the Ministry of Environment and the USAID Technical Assistance Program.

Confirmatory assessment of forest inventories for cedar and bigleaf mahogany

The agreement for this Activity was being finalized as this Newsletter was being prepared. Implementation, to be led by UNALM, will commence in October 2013. More details will be provided in the next issue of the Newsletter.

Relevant events/ initiatives

Workshop on Enhancing Tree Conservation and Forest Restoration in Africa

At the invitation of Botanic Gardens Conservation International (BGCI), the Regional Coordinator for Africa participated in a workshop- "Enhancing Tree Conservation and Forest Restoration in Africa" that was held in Entebbe, Uganda from 28 July to 4 August 2013. More than 25 participants working on the conservation of tree species and/or forest restoration attended the workshop. They were from botanical gardens in different countries in the region (Kenya, Tanzania, Uganda), NGOs (WWF, Nature Kenya, Nature Uganda), government institutions (Kenvan Institute of Forest Research), companies in the private sector, and international institutions (BGCI, ITTO, IUCN). The Regional Coordinator presented the African activities implemented

under the ITTO-CITES Program, including completed activities, on-going activities, and pending activities. He also presented the main outputs of the activities implemented under Phase I of the Program, focusing on the different steps required to be followed in conducting non-detriment findings of CITESlisted tree species by the different countries in the region. During his meeting with the Secretary-General of BGCI, he further elaborated on the on-going activities being implemented under Phase II of the ITTO-CITES Program and how botanical gardens could contribute to the conservation of CITES-listed tree species. Issues that need to be addressed under Phase II of the Program were also discussed including (i) developing tracking systems to better monitor forest harvesting; (ii) defining on a scientific basis, management parameters such as the minimum diameter for regular flowering and fruiting, the minimum exploitable diameter, the rate of barks recovery and the age of exploitable resources, including silvicultural standards and norms from the nursery to plantation; and (iii) policy advocacy. The Secretary-General of BGCI welcomed the possibility of cooperation, especially in defining management parameters and policy advocacy through its network of botanical gardens.

Participation of the Regional Coordinator for Africa at national training workshops

Invited by implementing agencies, the Regional Coordinator for Africa participated in the two national training workshops organized in Bertoua from 10-14 June 2013 and from 17-20 June 2013 in Douala, Cameroon. He also participated at the national training workshop organized in Pokola, Republic of Congo, from 26-27 June 2013 (more details in "Activity progress reports" section).

Video documentary on 'Ramin Management, Conservation and Protection in Indonesia'

The CITES Secretariat with the support from ITTO has commissioned the production of a short video on efforts taken by Indonesia to protect, conserve and manage its ramin population sustainably, as well as ensuring the trade in ramin products is in accordance with CITES provisions. The video will feature activities implemented in Indonesia under the ITTO-CITES Program that have supported authorities in Indonesia to meet the scientific, administrative and legal requirements for managing and regulating trade in ramin. The filming of the video was undertaken by Mr. Cristano Bucek and his colleague in Indonesia from 21-25 August 2013. It commenced with interviews in Jakarta with Dr. Novianto Bambang, the Director of Biodiversity Conservation, Indonesia; Mr. Adi Susmianto, Director of the Center for Rehabilitation and Conservation Research and Development, Indonesia; Mr. Tajudin Edy Komar, the Indonesian Country Coordinator for the ITTO-CITES Program; and Mr. Thang Hooi Chiew, the Regional Coordinator for the ITTO-CITES Program for Asia. They were requested to express in their own views on sustainable forest management; the current situation of ramin, the impact of the activities of the ITTO-CITES Program, and the role of institutions and the challenges ahead in managing CITES-listed tropical tree species. This was followed by filming of field activities at the forest concession area of PT. Diamond Raya Timber in Dumai, Sumatra. The video completes a three part set (including videos on Prunus africana in Cameroon and Swietenia macrophylla in Peru) that will be launched at the 49th ITTC session in November 2013.

Central American regional meeting under the ITTO-CITES Program

Participants from Central America and Mexico gathered at a workshop in La Antigua, Guatemala from 16-18 July to learn about the ITTO-CITES Program for Tropical Tree Species and how it can help countries to implement CITES regulations for listed tropical tree species. The regional workshop was hosted by Guatemala's government agencies responsible for CITES (CONAP) and for forests/ITTO (INAB). It was convened following the recent listing of species of Dalbergia (rosewood) from the region at CITES COP 16, and with the recent increase in exports of mahogany (Swietenia macrophylla) by Guatemala in relation to those of traditional exporters like Peru. Countries invited to the workshop in addition to host Guatemala included Belize (which sponsored the COP 16 Dalbergia spp. listing proposal), Honduras, Mexico and Panama.



Workshop participants in pinabete plantation. Photo: CONAP

Workshop participants learned about the work of the Program to date (with a focus on Latin America), shared experiences on their management of mahogany, rosewood and other listed species, and developed ideas for proposals for assistance under the Program along with a draft regional action plan to guide future work. A field trip during the workshop allowed participants to observe Guatemala's work to conserve the CITES Appendix I listed species *Abies guatemalensis* (pinabete). The report of the workshop will be posted on the ITTO-CITES Program website in due course.

Seminar on "Ecology and Silviculture of Mahogany (*Swietenia macrophylla King*)" in Brazil

The seminar was held on 20 August 2013 in Rio Branco, Acre State, Brazil. It provided a platform for participants to present and share research results and best-management practices of naturally occurring mahogany in natural forests in the Western Amazon, including recommendations for their improvement.

The results of Activity entitled "Ecology and Silviculture of Mahogany (*Swietenia macrophylla King*) in the Western Amazon" were presented at the seminar by Professor Paulo Contente of the Universidade Federal Rural da Amazônia (UFRA), the coordinator the Activity. Over 200 participants attended the seminar, including government officials from IBAMA, the Brazilian Forest Service, academia, students, researchers, forestry engineers, professionals in the forest sector and the Regional Coordinator for Latin America.

ITTO and CITES enhance cooperation

Officials from the CITES Secretariat visited ITTO headquarters in Yokohama on 22 August to review the implementation of the ITTO-CITES Program for Tropical Tree Species and to discuss ways to enhance the existing cooperation between the two organizations.

Topics discussed during the meeting included priorities for Program support over the next two years, joint activities/ workshops and outreach activities to inform stakeholders about Program outputs



ITTO ED Emmanuel Ze Meka (left) and CITES Secretary General John Scanlon. Photo: ITTO/K.Sato

Upcoming events/announcements

ITTO-CITES Program 8th Advisory Committee meeting

November 25, Libreville, Gabon (more details to be provided in invitations to advisory committee members)

49th Session of the International Tropical Timber Council (ITTC)

November 25-30, Libreville, Gabon

21st Meeting of the CITES Plants Committee

May 4-8 2014, Veracruz, Mexico (9th ITTO-CITES Program Advisory Committee meeting also to be scheduled during this week)

65th Meeting of the CITES Standing Committee

July 7-11 2014, Geneva, Switzerland

CITES seeks assistance from importers of Madagascar timber

The CITES Secretariat has issued a notice to parties to CITES seeking assistance in preventing trade in threatened timber species from Madagascar. The notice recalls the recent Appendix II listing of Malagasy *Dalbergia* and *Diospyros* species and the zero export quota for specimens of these species imposed by Madagascar's CITES Management Authority for the period 13 August 2013 to 13 February 2014. It calls on all parties receiving shipments of timber from Madagascar during this period to carefully check them and inform Madagascar and the CITES Secretariat of the seizure of any illegal shipments. More details: **English** http://www.cites.org/eng/notif/2013/E-Notif-2013-039.pdf;

French http://www.cites.org/fra/notif/2013/F-Notif-2013-039.pdf; Spanish http://www.cites.org/esp/notif/2013/S-Notif-2013-039.pdf

Program monitoring

To ensure the transparency of the ITTO-CITES Program, regular monitoring of field implementation will be conducted in Africa, Asia and Latin America by the respective Regional Coordinators. Mid-term and ex-post monitoring will also be conducted as per the terms of the grant agreement with the EC and ITTO's rules and procedures.

In this context, the Regional Coordinator for Africa, Jean Lagarde Betti, conducted monitoring missions to Yaoundé, Cameroon from 5-6 August 2013, to Kinshasa, DRC from 28 August to 2 September 2013, and to Brazzaville, Republic of Congo from 3-6 September 2013. The monitoring missions evaluated (i) the progress in activities implementation to achieve the expected outputs; (ii) the efficiency and efficacy of the modality of direct implementation and the conceptual and methodological approaches chosen by each implementing agency; and (iii) the actions required to be undertaken before the completion of the Activities so as to successfully achieve the objectives and outputs of the Activities.

The Regional Coordinator for Asia, Thang Hooi Chiew, taking advantage of his presence in Jakarta for the production of the video documentary on ramin management, conservation and protection in Indonesia, undertook from 22-23 August 2013 an evaluation of the progress in implementing the Activity on the 'Assessment of Ramin Plantation Requirement and the Establishment of Ramin Genetic Resources Conservation Gardens', including its possible extension to December 2013. He also held discussion on six new proposals from Indonesia that are being considered for submission to ITTO for funding, namely, (i) Ensuring Genetic Diversity of Ramin Seed Sources and Ramin Population from Rooted Cuttings; (ii) Enhancing Ex situ Conservation and Sustainable Management of Gonystylus species; (iii) Developing an Integrated Pests and Disease Control System for Agarwood Plantation; (iv) Establishment of an Integrated Agarwood Cluster in Bintan Island, Indonesia; (v) Identification of Essential Compounds related to Establishment of Biosynthesis Pathway of Agarwood Production in Aquilaria malaccensis; and (vi) Setting-up Ramin Conservation Concept (Gonystylus spp.) for Plantation Forest Concessions (IUPHHK-HT).

The Regional Coordinator for Latin America is planning to undertake a monitoring mission to Peru in October 2013 to oversee project activity on mahogany (*Swietenia macrophylla*) and cedar (*Cedrela odorata*). A visit to relevant officials in Brazil is also planned to discuss activities to be implemented under the Program once Brazil completes ITTO's membership procedures.

Contacts:

ITTO - **Steven Johnson**, ITTO Coordinator – johnson@itto.int **Ishii Kanako**, Program Assistant – ishii@itto.int CITES - **Milena Sosa Schmidt**, CITES Coordinator – milena.schmidt@cites.org Regional Coordinator for Africa – **Jean Lagarde Betti** – lagardeprunus@gmail.com Regional Coordinator for Asia – **Thang Hooi Chiew** – hcthang@streamyx.com Regional Coordinator for Latin America – **Ivan Tomaselli** – itomaselli@stcp.com.br

Sofia Hirakuri - shirakuri@stcp.com.br

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