

REPORT

Asian Workshop of the ITTO-CITES Project on Ensuring International Trade in CITES-listed Timber Species is Consistent with their Sustainable Management and Conservation: *Gonystylus* spp. (Ramin)

1-2 July 2009
Bogor, Indonesia



Editors:
Tajudin Edy Komar & Hesti Lestari Tata

In Cooperation Between the International Tropical Timber Organization (ITTO)
and the Forestry Research and Development Agency (FORDA)



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ISBN 978-602-95842-2-6

Asian Workshop of the ITTO-CITES Project on Ensuring International Trade in CITES-listed Timber Species is Consistent with their Sustainable Management and Conservation: *Gonystylus* spp. (Ramin), 1-2 July 2009, Bogor, Indonesia/Editors Tajudin Edy Komar and Hesti Lestari Tata. ISBN 978-602-95842-2-6

Published by

Indonesia's Work Programme for 2008 ITTO CITES Project
Center for Forest and Nature Conservation Research and Development
Forestry Research and Development Agency, Ministry of Forestry, Indonesia
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Photo by Project Team

Printed by
CV. Biografika, Bogor

ACKNOWLEDGEMENTS

The organizers gratefully acknowledged the permission granted by the Government of Indonesia through the Ministry of Forestry to host the Asian Workshop of the ITTO-CITES Project on Ensuring International Trade in CITES-listed Timber Species is Consistent with their Sustainable Management and Conservation: *Gonystylus* spp. (Ramin). The organizers extend their appreciation to the Forestry Research and Development Agency (FORDA) and the Center for Forest and Nature Conservation Research and Development (CFNCRD) for various supports to the organization of this workshop. Special thanks was also addressed to the Senior Advisor to Minister of Forestry, Dr. Fauzi Mas'ud, who representing FORDA has given his time to deliver opening remarks to the workshop. The financial supports from the International Tropical Timber Organization and European Commission as primary donor are especially acknowledged.

The organizers also would like to extend the appreciation to Mr. Thang Hooi Chiew, Regional Project Coordinator of ITTO-CITES Project for Asia and Ms. Tong Pei Sin of the ITTO Secretariat for their guidance during the preparation and the organization of the workshop including in the identification of overseas participants. Special thanks is also due to the chairs of the session, facilitators, rapporteurs, time keeper and the documentation team.

Finally, we also thank all participants for their active participation throughout the two days workshop.

OPENING REMARKS BY DR. A. FAUZI MAS'UD

I believe we are all here, attending this workshop because of our concern on the status of sustainable management and conservation of ramin in the range states, Indonesia and Malaysia and international trade in the world market. Due to conservation reason, ramin is listed into CITES Appendix III of CITES in 2001 and up-listed into Appendix II in 2004, effective in 2005.

Forest resource in Indonesia is approximately 120 million ha distributed naturally in the most of islands of the Indonesian archipelago. The forest resources consist of production forests, conservation, protected and convertible forest areas to other uses. It has been predicted that there are approximately 4,000 forest tree species naturally found in Indonesia and nearly over 260 species have been identified as timber species having potential trade for commercial purposes. Among those commercial timbers, some of them have been internationally traded including ramin (*Gonystylus bancanus*).

In Indonesia, ramin (*G. bancanus*) distributes naturally in peat swamp forests (PSF) of Sumatra and Kalimantan. Ramin from other than *G. bancanus*, which have been predicted to be more than ten species are found in dry land areas. The status of the ecological distribution and conservation of *Gonystylus* species other than *G. bancanus* are under observation.

In relation to its management and conservation, there are still many challenges. The challenges include the insufficient biological-ecological data on ramin distribution, undeveloped propagation and plantation technology, unclear trade data and monitoring, lack of awareness and weak capacity and enforcement of rules and regulation. Other issue is related to the implementation of CITES. In general it still faces insufficient human resource capacity (knowledge and skill), insufficient elaboration of guideline, rules and regulations (SOP), insufficient scientific data (i.e. quota determination), weak coordination and law enforcement and lack of market incentive and disincentive scheme.

Previous ITTO Expert meeting on the effectiveness of the inclusion of ramin into Appendix II of CITES, held in Kuala Lumpur in 2006, has made conclusions and recommendations in four aspects and we need to observe its progress in this workshop. The four aspects are (1). Ecological and management status of Ramin (*Gonystylus* spp.), (2). Review of market and international trade in ramin, (3). Capacity building for meeting the requirement of CITES Appendix-II Listing of ramin and (4). Coordination and Cooperation for the effective implementation of the inclusion of ramin in Appendix II of CITES

I am confident that the outputs and the outcomes of this workshop will be very useful to establish regional strategy and action plan from all aspects discussed in this workshop including international trade toward the SFM on ramin.

Dr. A. Fauzi Mas'ud,
Senior Advisor for the Minister of Forestry-Indonesia

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ACRONYMS

AAC	Annual Allowable Cut
APHI	Asosiasi Pengusaha Hutan Indonesia (Association of Indonesian Forest Concession Holders)
ASEAN	Association of South East Asian Nations
ASEAN-WEN	ASEAN-Wildlife Enforcement Network
CITES	Convention on International Trade in Endangered species of Wild Fauna and Flora
COC	Chain of Custody
DRT	Diamond Raya Timber
EC	European Commission
EU	European Unions
EA	Executing Agency
FMU	Forest Management Unit
FRIM	Forest Research institute of Malaysia
FORDA	Forestry Research and Development Agency
FSC	Forest Stewardship Council
GEF	Global Environment Facility
HS	Harmonized Commodity and Coding System
IDR	Indonesian Rupiah
IPB	Institut Pertanian Bogor (Bogor Agriculture University)
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LEI	Lembaga Ekolabel Indonesia (Indonesian Ecolabelling Institute)
LIPI	Lembaga Ilmu Pengetahuan Indonesia (Indonesian Institute of Sciences)
MA	Management Authority
SA	Scientific Authority
SPA	Seed Production Area
SMS	Selective Management System
NDF	Non-Detrimental Findings
NGO	Non-Government Organization
PHKA	Perlindungan Hutan dan Konservasi Alam (Directorate General of Forest Protection and Nature Conservation)
PSF	Peat Swamp Forest
PT	Perseroan Terbatas (Holding company)
RIL	Reduced Impact Logging
SFM	Sustainable Forest Management
SKSHH	Surat Keterangan Sahnya Hasil Hutan (timber royalty collection form of Indonesia)
WCMC	World Conservation and Monitoring Center
WG	Working Group

1. INTRODUCTION

Background

Ramin, a commercial name of *Gonystylus* spp., distributes naturally in South East Asia and some species distributes in Solomon and Fiji. The number of species within the genus remains unclear, however, it has been predicted to be 30 species or more depending on their taxonomic interpretation. Some of *Gonystylus* spp. are woody plant and others are small tree and shrubs. Among the woody species, only *Gonystylus bancanus* has been commercially harvested and traded. Other species, may have been harvested and traded as member of mixed light hardwood (MLH).

The harvest of ramin, especially *G. bancanus*, has been started since early 1970's along the harvest of tropical forest in this region and the species is still being harvested until today. The harvest methods used, along with other change of forest condition due to various factors, have made some tropical species undergo population decrease, depletion and even extinction. This includes *Gonystylus* spp.

According to the assessment by World Conservation and Monitoring Center (WCMC) using 1994 IUCN Red list categories and criteria (Version 2.3), 15 species of *Gonystylus* are at the status of "vulnerable" and facing a high risk of extinction in the wild in the medium-term future. Results of recent studies and observation, especially for *G. bancanus*, have confirmed the concern, especially in some geographical ranges, like Indonesia. Various efforts to further prevent the rate of population depletion have been put in place through various means, such as regulation in its international trade, regional cooperation and national initiatives. ITTO-CITES Project on *ensuring CITES-timber listed species is consistent with their sustainable management and conservation* is one of the international commitments to assist in the SFM and conservation of ramin.

Objective

The main objectives of the workshop are:

- (1). to introduce current ITTO-CITES programme for implementing CITES listing of tropical timber species, specific to ramin (*Gonystylus* spp.). This ITTO-CITES project has been officially started in this region in 2008 and several activities are being implemented by Indonesia and Malaysia.
- (2). to assess and evaluate the progress achieved for each activity in both Indonesia and Malaysia and to ensure effective implementation of the findings.
- (3). to review on the progress and actions taken to implement the recommendation of the previous ITTO Expert Meeting on the Effective Implementation of the Inclusion of ramin (*Gonystylus* spp.) in Appendix II of CITES, held in Kuala Lumpur, 2006.

- (4). to develop priorities and a regional strategic approach for improving the implementation of the CITES-listed *Gonystylus* species.

Expected Outputs

This Asian workshop is expected to obtain information on the current status of sustainable management and conservation of ramin through direct communication with range states, importing countries, CITES-management authorities, CITES-Scientific authorities, trades, forestry association and NGO. It is also expected to obtain positive perception on the inclusion of timber species into CITES appendix and the achievement made from the previous ITTO Expert meeting. One of the deliverables from this workshop is a report containing views of various stakeholders, identified issues, analyses and recommendation.

In addition to the above mentioned outputs, it was expected that a regional strategy and action plan for sustainable management and conservation of ramin be formulated and/or initiated. In some extent the initiation of the regional cooperation has been started, one of them is the “Tri-National Task Force on Trade in Ramin” which has been temporarily suspended.

Participations

This workshop has been designed to have participation from producing-importing countries of ramin, CITES-Management and Scientific Authority, trade community, forestry association and local and international NGO. Members of the Tri-National Task Force on Trade in Ramin (Indonesia, Malaysia and Singapore), which are also representing producing and importing countries have been put as the major states to participate in this workshop in addition to China as other major importing country other than Japan, US and Canada. Embassies of the United States of America, Singapore, China, Norway and New Zealand have also been invited to send their representatives to attend the workshop. However, due to some reasons, there were no participants from Singapore, China, US, Norway and New Zealand attending this Asian workshop. Total participants attending this workshop were 35, consisting of domestic and overseas participants. Detail Agenda and List of Participants are shown in Annexes 1 and 2, respectively.

2. ITTO-CITES PROGRAMME ON TIMBER LISTED SPECIES

Excessive harvest has caused various concerns on the sustainability of tropical tree species. Three tropical species have been the concern of the international community, such as CITES, ITTO, WCMC and others. These three tropical species are big leaf mahogany (*Swietenia macrophylla*), which is growing naturally in Latin America, Afrormosia (*Pericopsis elata*) in Central Africa and ramin (*Gonystylus* spp.) in South East Asia. These three tropical timber species have been listed into Appendix of CITES and its sustainable management and conservation have become the main objective of the listing.

In 2001, the International Tropical Timber Council meeting had made a significant decision related to the enhancement of the sustainable management and conservation of the above three species (Decision 2(XXXVII) on enhanced cooperation between ITTO and CITES). Ramin, *Gonystylus* spp., is naturally found in some South East Asia countries and in some islands in the Pacific Ocean. Dominant distribution is only in Indonesia and Malaysia, especially its commercial timber species, *G. bancanus*.

CITES Programme

The CITES Secretariat has an important role and function in the monitoring and evaluation on the effectiveness of the inclusion of the species into CITES Appendix and to ensure the international trade has complied with rules and regulation. In order to have effective implementation, CITES encourages the range states to provide conditions which promote the collection of more accurate resource base data, species management, NDF assessment, management plan, regulatory system and good cooperation among stakeholders.

Institutions and human resource capacities also influence the effective implementation of CITES rules and regulation. Law enforcement practice in each country has also given contribution to the successful management. CITES has also encouraged range states to develop joint action plan, exchange of information and experience and lessons learned from other country to achieve overall objectives of the inclusion of species into the Appendix. A detail presentation by the CITES Secretariat is shown in Annex 3.

ITTO Programme on CITES

ITTO has undertaken numerous activities to assist ramin range states in the implementation of CITES listing through a thematic programme of ITTO-CITES project. Under this project, an ITTO expert meeting had been held in Kuala Lumpur, Malaysia, in 2006. This Asian workshop is basically as follow-up and an evaluation of the actions taken to its conclusion and recommendation and the possibility to establish regional cooperation. Several important issues have been identified and analyzed and some recommendations have been made by range states, especially by CITES management and scientific authorities. Other communities such as timber trade and

NGO are also expected to take similar efforts to achieve common goal in the sustainable management and conservation of this timber species.

The ITTO Secretariat has established a website for media communication and information exchange, in addition to various publications, monthly newsletter and other types of communication.

The current ITTO-CITES programme was originally designed until 2010. Due to the complexity of the problems of each species and their associated management faced by each individual range state, this programme might be open ended. However, the extension is much dependent on the progress and the availability of funding from donor countries. A detail presentation by the ITTO Secretariat is shown in Annex 4.

3. PROGRESS OF ITTO-CITES PROJECT ON RAMIN

Several activities of ITTO-CITES project for 2008 work programme are being implemented by Indonesia and Malaysia, as main range states for ramin. Status of ramin in both range states is slightly different in terms of research and development, management policy, conservation, distribution and institutional and human resource capacity. In relation to this difference, the two countries have set the priority activities to be carried out under the current programme. The findings and lessons learnt from the activities will not only contribute to filling the gap of information and provide alternative solutions to the problem faced by the two countries, but also to the rest of the regions. Below is a brief description of each activity and the progress.

Indonesia

In the 2008 work programme, Indonesia executes four activities consisting of three small projects and one National Workshop. The projects and workshop are focused on the collection of resource base data through the improvement of inventory design, improving sustainable management through the improvement of silvicultural system and its practice and an exploratory assessment of species within *Gonystylus*, other than *G. bancanus*. The National Workshop is directed to the identification of information gaps toward the sustainable management and conservation, administrative and legal requirement and long term strategy for ramin. The complete presentation is attached in Annex 5.

Identification of information gaps, requirement and long term strategy

This national workshop was carried out to identify information gaps, alternative long term strategy and recommendation toward sustainable management and conservation of ramin. Ramin of *G. bancanus* naturally distributes in PSF in Sumatra and Kalimantan, under different management system as conservation and protected forest areas and production forest. Each management system faces different challenge. Through this workshop, the information gaps, administrative and legal requirement and long term strategy toward the sustainable management and conservation of ramin in those management systems are identified and the involvement of relevant stakeholders in the management has been identified to be further accommodated.

Identification on information gaps covers biological, ecological, silviculture aspects and long term strategy for sustainable management and conservation. In addition, aspects on policy, trade and CITES implementation have also been discussed in this national workshop. The existing long term strategy and action plan for SFM and conservation on ramin have been re-examined and revised toward the successful field implementation nationally and locally.

Developing inventory design for estimating ramin population and growing stock

In general, PSF ecosystem has extremely poor accessibility and requires extra effort to work as in dry land areas. This condition has caused data and information collection in natural resources of PSF is mostly difficult and mostly resulted in less accurate. On the other hand, the appropriate management plan could be started from the accurate resources base data and information. In the beginning, the estimate of standing stock not only in PSF but also in other dry land forest areas were based on terrestrial or ground survey and employing various statistical and or sampling methods. Poor accessibility in the ground survey mostly resulted in less accurate data. By employing the technology the data on the estimate of forest resource of PSF could be obtained in relatively faster, more cost-effective and more accurate than those by conventional method. This activity is aimed to obtain relatively more accurate estimate, cost-effective method to estimate ramin standing stock in natural forest stands in Sumatra and Kalimantan, including its spatial distribution.

Assessing silvicultural system in PSF: Review of current practice and revitalization of existing permanent sample plot

Since late 1970s, the early stage of timber harvest in Indonesia, a Selective Cutting System (Tebang Pilih Indonesia-TPI) was used as general silvicultural system. Later, Selective Cutting and Enrichment Planting (Tebang Pilih Tanam Indonesia-TPTI) was applied. TPTI is a modified Selective Cutting by adding a mandatory replanting in the harvesting area when the number of seedling is insufficient for regeneration or forest recovery after logging operation. A series of modification of the system were made, especially in diameter limit, the number of core trees and cutting cycle. However, there has not been any review and evaluation on the silvicultural system, the policy and its practice in the field, including ramin harvest practice in PSF. In order to ensure the sustainable management of ramin and PSF, it is important to make a comprehensive review on the system and its application on ramin and other PSF species. Under this ITTO-CITES project, the review and evaluation are carried out including its scientific basis, rules and regulation and its implementation in the field. This activity is carried out in Sumatra and Kalimantan and the number of concession to be evaluated is depending on the availability and the accessibility of the sites and the concession companies implementing the system.

In addition to the review of silvicultural system, the review of PSP was also carried out. This part addressed on the revitalization of existing permanent sample plots to be used for long term ecological study to observe not only for growth and yield but also to observe population dynamics of ramin and other species in peat swamp forests. From this ecological study plots, the scientific information of ecological and biological aspects of peat swamp forest is expected to be available for setting long term strategy of PSF management.

Exploratory Assessment of *Gonystylus* species other than *G bancanus*.

Gonystylus spp. was listed into Appendix of CITES as a genus. This genus consists of more than 30 species with a wide range of natural distribution in PSF and other dry land areas from lowland to hill forest. From the genus, only one species of ramin,

G. bancanus, has been fully explored their population, distribution and potential status. Other *Gonystylus* species remain under explored. In this activity, the exploratory assessment is aimed to identify the population and conservation status including the approximate growing stock and its potential use.

Malaysia

In the current 2008 work programme, Malaysia implements five activities carried out in both Peninsular Malaysia and Sarawak. In Peninsular Malaysia, project activities focus on quantification of ramin population, determination of sustainable harvest and the development of monitoring systems. Whereas in Sarawak, the activities focus on NDF assessment and DNA database establishment for *Gonystylus bancanus*. The complete material presented is shown in Annex 6.

Non-detrimental findings report on G bancanus: A quantitative assessment of G bancanus in two selected permanent forests of Sarawak

This activity is aimed to collect data on the population and distribution status and stocking of *G. bancanus* in production forest, in order to obtain sustainable level of harvest (quota) of ramin from Sarawak. The status and the stocking are obtained through the field data collection from the newly established transects across the two selected permanent forest areas, Kayangeran Forest Reserve and Saribas Lupar Protected Forest. Data entry and further analyses will produce the estimate of sustainable harvest of ramin in these areas.

The quantification of dry and wet inland Gonystylus spp (ramin). Aquilaria spp (agarwood) and Intsia spp (merbau) in Peninsular Malaysia.

This activity is aimed to obtain data and information on the distribution, status and stocking of ramin, agarwood and merbau and at the same time, will establish ten permanent sample plots (PSPs) for periodic monitoring of growth, mortality and recruitment of ramin in Peninsular Malaysia. The expected outputs include the improved knowledge of forest officers and contractors on ramin, agarwood and merbau, obtained information on biological and ecological status including distribution and stocking of these three species, sustainable harvest level and other relevant information required for improved management system and future utilization.

The improved knowledge and skill of forest officers and contractors are achieved through the execution of a short training course on inventory design and identification of ramin, agarwood and merbau species. Thirty participants have participated in this training course from the Forestry Department Peninsular Malaysia and associated forestry contractors.

Generation of spatial distribution maps of *G. bancanus* (ramin) using hyperspectral technology and determination of sustainable level of harvest of ramin in production forests of Peninsular Malaysia

This activity is aimed to contribute to the provision of data and information necessary for setting sustainable level of harvest of ramin through the improvement of inventory design with the case of Pekan Forest Reserve, Pahang. In this activity, the inventory or estimate is carried out by employing a hyperspectral technology to generate spatial distribution. The immediate outputs include spectral library, spatial distribution map and non-spatial database, data and information on population dynamics and sustainable harvest level of ramin. This activity will also produce knowledge and understanding on the distribution pattern of ramin.

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

This activity is aimed to find the cost-effective method to trace and track timber movement by using radio frequency identification (RFID) technique. By using this RFID technique, the efficiency of timber monitoring for ramin in Peninsular Malaysia could be improved through the strengthening of tree marking operation, employing electronic data logger and gentry (gate). This technique is additional to the existing methods for timber tracking using barcode system and/or DNA timber tracking previously developed for other timber species.

Developing DNA database for *Gonystylus bancanus* in Sarawak

It has been widely known that DNA fingerprint could be an accurate tool to trace and track the origin of specimen. Based on this understanding, this activity is aimed to develop DNA fingerprint for ramin timber tracking by developing DNA database collected from each habitat or distinct-differentiated population. In nature, each individual or unique population could possess unique DNA fingerprint, and therefore, could be used to differentiate one population or individual tree from other population or individual tree.

In addition to generate DNA database for the basis of detection, this activity will also produce genotype profiles and information on genetic variation within and among populations of ramin in Sarawak forest. Nearly 90 sampled trees were observed and their DNA from wood specimens were also extracted for analyses.

4. STATUS OF ECOLOGY, MANAGEMENT AND EFFORTS THE TOWARDS EFFECTIVE IMPLEMENTATION

Ramin, *G. bancanus*, is naturally growing in peat swamp forest (PSF) in Peninsular Malaysia, Sabah and Sarawak for Malaysia and Sumatra and Kalimantan for Indonesia. This species has been logged since 1970 or even earlier and becoming popular since late 1980s. The method used in ramin harvesting in both countries is slightly similar, applying selective cutting system with diameter limit and cutting cycle. The implementation of silvicultural system in both countries is influenced mostly by the forest condition, research and development, technology, rules and regulation, supervision and monitoring. This condition provides significant contribution to the achievement of SFM and conservation of ramin in both countries.

Ecological and Management Status of *Gonystylus* spp. in Malaysia

Malaysia is applying the Selective Management System (SMS) for dry inland forests with cutting cycle of 30 years. Operational logging is based on annual coupe and pre- and post felling inventory. This management system has been slightly modified to be suitable for the application in peat swamp forest areas in Peninsular Malaysia and Sarawak. Ramin, which has been logged since 1960s, has been considered as over exploitation lately due to its high commercial value.

For peat swamp forest, the cutting system follows the Malaysia's modified Selective Management System (modified SMS) with cutting cycle of 50 years, with diameter limit of 55 cm for ramin and other species applied in state of Pahang, Peninsular Malaysia. A newly developed Reduced Impact Logging (RIL) has also been applied in Pahang (Rimbaka Timber Harvesting) and in Pre-determined skid trail of Selangor. In Sarawak, the harvest is applying 45 years cutting cycle with diameter limit of 40 cm for setting pre-determined annual permissible harvest. RIL using *kuda-kuda system* has also been recently applied in Sarawak forest for harvesting ramin. By applying this RIL system, the destructive impact of logging has been substantially reduced and the recovery of habitat and population could be achieved relatively faster.

The status of research and development on phenology, ecology (habitat specialization) and reduced impact logging have also been recently intensified. The recent findings have enriched the previous knowledge and understanding of PSF, both in Peninsular Malaysia and Sarawak.

Flowering pattern of ramin, as recorded in Peninsular Malaysia, is supra annual. Based on the previous records in Indonesia, peak flowering season occurs every 4-5 years and a few ramin trees produce flower in between but insufficient to produce seeds. Previous studies indicated the annual flowering of ramin in Kalimantan (Indonesia), however, there is no intensive monitoring to support information on the annual flowering for seed production. The factors influencing the interval of flowering and flowering pattern on ramin has been speculated as flooding or wet and dry period of the habitat. The age of first flowering, pollinators, predators of fruits/seeds and

patterns of seed dispersal have also been studied including those recently carried out intensively in Malaysia.

Intensive studies on ecology and habitat specialization have been carried out in Peninsular Malaysia under the UNDP/GEF project located at the Pekan Forest Reserve, Pahang. Relationship between habitat (peat soil depth) and the population density, level of fertility (nutrient status) and water table have been recorded as having correlated with population density and growth of ramin. Similar studies have also been carried out in Indonesia with scattered sites and time frame, in Sumatra and Kalimantan, also by various research institutions and universities. FORDA, Regional Forestry Research Centers in South Sumatra and South Kalimantan, Faculty of Forestry (IPB) and Faculty of Forestry, University of Palangkaraya (Central Kalimantan) are among institutions that have carried out various studies on *G. bancanus* species. Information obtained has given valuable contribution to sustainable management and conservation of ramin.

A newly concept of environmentally sound harvesting methods, Reduced Impact Logging (RIL), was tested and practiced in the harvest of ramin in Pekan Forest Reserve, even since 1999. Several scenarios for harvesting system (combination of diameter limit and cutting cycle and its impact to the revenue and recovery) have been observed. This has become important information for future management and operational logging. In Indonesia, environmentally sound method of harvesting has also been introduced in PT. Diamond Raya Timber (Indonesia). However, weak supervision and monitoring, the compliance with the RIL principles, the rules and regulation may have reduced the impact to SFM.

The status of research and development on ramin in both range countries, Malaysia and Indonesia may be slightly different which is influenced by the priority setting, and the condition and the resource availability of each country. In general, the studies on the ecological and biological status of ramin have achieved a certain stage for which the ultimate goal for sustainable management and conservation of ramin could be achieved. A complete paper is shown in Annex 7.

Coordination and Cooperation for the Effective Implementation of the Inclusion of Ramin in Appendix II of CITES in Indonesia

Peat swamp forest (PSF), where ramin is naturally growing in Indonesia, ranges from Sumatra to Kalimantan, with total area of approximately 13 million ha. Efforts toward the SFM and conservation of this species and PSF in general have been marked by the issuance of several policies to support the conservation under national law, conservation of plant genetic resources residing in concession areas and the application of environmentally sound method of logging. The institutional and human resources capacity building have also been carried out not only to improve the management of forest resources but also its corresponding rules and regulation including moratorium policy and the inclusion of ramin into the CITES Appendix.

Under the national law, any plant materials conserved in conservation areas are protected except for research purposes. By this regulation, it has been expected that

existing plant genetic resources including ramin growing naturally in that areas remain well protected and conserved, not only for research purposes but also for future uses. Several conservation areas, where ramin is abundantly found, are Berbak National Park in Jambi (Sumatra) and Sebangau and Tanjung Putting National Parks in Kalimantan. Other types of protected areas and nature reserves have also been distributed in its natural habitat in Sumatra and Kalimantan.

To reduce pressure for exploitation and protect its habitat, the Government of Indonesia has imposed logging moratorium for ramin since 2001. This policy is aimed to enhance the recovery of degraded habitats by providing time and space for natural regeneration and to reduce illegal harvest and trade of ramin in both Sumatra and Kalimantan. At the same time, forest industry is expected to find alternative source of materials or substitution for ramin from other timber species. During the moratorium policy, only certified timber companies are granted permit to harvest ramin. To date, only one timber company, PT Diamond Raya Timber of Riau, is granted a harvest permit after receiving a certificate of SFM from the Indonesia Ecolabelling Institute (LEI) and Chain-of-Custody from the Forest Stewardship Council (FSC).

The inclusion of ramin into CITES Appendix is also aimed to reduce illegal export of ramin through joint control by both exporting and importing countries. In order to fully implement CITES requirement, additional rule and regulation are required including the improvement of capacity both institutional and human resource in implementing the CITES requirement. Indonesia CITES-MA has organized a series of capacity building as presented by Dr. Tonny Soehartono, Director of Biodiversity Conservation (See Annex 8). This includes the improvement of coordination and cooperation with other relevant institutions.

In addition to the national effort to sustainably manage and conserve ramin, a regional forum has also been established consisting of Indonesia, Malaysia and Singapore, called the "Tri-National Task Force on Trade in Ramin". This forum was established in 2005 and mandated to reduce trade of illegal ramin timber. The annual meeting of this forum has been temporarily suspended since its last meeting in Singapore, 2007. Other wider forum is the ASEAN-Wildlife Enforcement Network (ASEAN-WEN), launched in 2007, consisting of country's CITES-MA, Customs Offices, Attorney Offices, Police and Interpol from ASEAN Member States. The mandate is also to control the international trade of wildlife species to ensure the sustainable harvest and conservation.

5. ISSUES, RECOMMENDATIONS AND STRATEGY

Three Working Groups (WGs) were formed in the workshop based on the issues raised from the previous ITTO Expert Meeting in 2006. The discussion within the WGs is based on a participatory approach with free and non-binding exchanges of views of all members, some background information and documents (papers and presentation materials) were provided including resource persons. Resource persons of working group provided inputs in a view of enhancing the discussion and of reaching conclusion on elements that appear to be of relevance for recommendation, as well as, for strategic and action plan. The WGs made conclusion and agreement on certain issues that need to be explored or covered at national and regional level. The complete term of reference for the formation of the working group is shown in Annex 9.

Based on the observation and consensus of the WGs, the analyses of issues raised, recommendation and strategy and action plan were composed and presented in the plenary session to obtain views, comments from the rest of workshop participants. The objective of making recommendations is to encourage and facilitate operational steps of range states and importing countries to promote sustainable management and conservation of ramin.

In addition to the materials presented in the workshop, a power presentation entitled "Capacity building for meeting the requirement of the inclusion of ramin in Appendix II of CITES, by the Agri-Food and Veterinary Authority of Singapore was circulated and used in the workshop and in Working Group session, even though there was no delegation from Singapore attending the workshop. The complete presentation is shown in Annex 10.

The issues, recommendation and strategy and action plan delivered by each working group are as shown below.

Ecological and management status of ramin (*Gonystylus* spp.) (Working Group 1)

A. Issues

1. Regeneration of ramin in production forest area is poor.
2. There is no large scale ramin plantation in Malaysia and Indonesia. Large scale plantation is not viable due to some reasons: slow growth, irregular mass fruiting season (3-5 years), not yet successful propagation from tissue culture. Vegetative propagation with shoot cuttings is possible but difficult to get sufficient planting stocks for economic purpose. Genetically, ramin produces limited shoot as source of cuttings.
3. Private sector in Indonesia (Riau) has started ramin rehabilitation using mixed species for conservation purpose.

4. There are systems to inventory and to quantify *G. bancanus* to be harvested, but not at FMU level.
5. Require inventory of *Gonystylus* at species level, especially for commercial ramin species.
6. There is specific diameter cutting limit for *G. bancanus* but no specific cutting limit for harvesting of other commercial *Gonystylus* species.
7. Further research on the silvicultural systems (restoration, natural regeneration, tree dynamics) of *G. bancanus* are required.
8. Further research on biological and ecological on non-*G. bancanus* species are required.
9. Harvesting of peat swamp forest using RIL system is environmentally acceptable and canals are not recommended for logs transportation.
10. There is still lack of information on population, distribution, stocking of ramin resource and therefore need specific inventory of ramin.
11. Establish a standard methodology for the formulation of NDFs for ramin based on the outcome of the International Expert Workshop on CITES Non-Detriment Findings, in Cancun, Mexico.
12. Better protection and conservation of pre-dominantly *G. bancanus* forests, e.g. from forest fire, illegal encroachment and biodiversity loss, through effective implementation of forest management plan.

B. Recommendations

1. Establish a standard methodology for the formulation of NDFs for ramin based on the outcome of the International Expert Workshop on CITES Non-Detriment Findings, in Cancun, Mexico.
2. Conduct regional workshop and training for facilitating the implementation of Non-detrimental finding (NDF) and SFM on ramin.
3. Enhance rehabilitation of logged over peat swamp forests, e.g. blocking of the existing canal, enrichment planting and protection from forest fire.
4. Better control for harvesting of predominantly ramin forest and enhance enrichment planting program on logged over area.
5. Undertake inventory to quantify *G. bancanus* to be harvested at FMU level.
6. Undertake inventory of all commercial *Gonystylus* at species level.

7. Develop specific cutting limits for harvesting of other commercial *Gonystylus* species, besides *G. bancanus*.
8. Ensure sufficient planting material for forest rehabilitation program through establishment of seed production areas (SPAs), clonal orchards, tissue culture techniques, wildings, etc.
9. Provide incentive for private sector to undertake forest rehabilitation of ramin mixed with other species for conservation purpose.
10. Undertake further research on the silvicultural systems (restoration, natural regeneration, tree dynamics) of *G. bancanus*.
11. Undertake further research on biological and ecological on non-*G. bancanus* species.
12. Enhance the protection and conservation of *G. bancanus* forests, e.g. from forest fire, illegal encroachment and biodiversity loss, through effective implementation of forest management plan.
13. Enhance networking of scientific authorities and forest managers in the region, especially between Indonesia and Malaysia on aspect of ecology and management of ramin.
14. Develop tracking system and data base for *G. bancanus* and other commercial *Gonystylus* species by using DNA technology.

C. Strategy and action plan (priority based)

1. Establish a standard methodology for the formulation of NDFs for ramin based on the outcome of the International Expert Workshop on CITES Non-Detriment Findings, in Cancun, Mexico; and conduct regional workshop and training for facilitating the implementation of NDF, including SFM on ramin.
2. Develop specific management and rehabilitation plan for predominantly ramin forests, including specific cutting limits for harvesting of other commercial *Gonystylus* species, besides *G. bancanus*.
3. Effective implementation of forest management plan for the protection and conservation of *G. bancanus* forests, e.g. from forest fire, illegal encroachment and biodiversity loss.
4. Establish adequate seed production areas (SPAs) and clonal orchards.
5. Apply appropriate inventory systems for *G. bancanus* to be harvested at FMU level, and all commercial *Gonystylus* at species level.

6. Enhance networking of scientific authorities and forest managers in the region, especially between Indonesia and Malaysia on aspect of ecology and management of ramin.
7. Undertake further research on the silvicultural systems (restoration, natural regeneration, tree dynamics) of *G. bancanus*, and on the biological and ecological of non *G. bancanus* species.
8. Develop data base using DNA technology for verification of origin of *G. bancanus* and other commercial *Gonystylus* species.

Review of Market and international trade in ramin (Working Group 2):

A. Issues

1. The determination of how the export quota is linked to the yield rate, conversion factor and domestic use.
2. Lack of forum to discuss on international timber trade issues between producer and consumer countries including re-exporting countries.
3. Need to improve linkages between Management Authority of producing and consuming countries.
4. Lack of assurance of origin of the timber.
5. Lack of understanding of the ramin market.

B. Recommendations

1. Comprehensive study on the criteria to use and the proportion for domestic use.
2. Create forum to discuss on custom trade data, exchange information, etc including the use of electronic permit system.
3. Create a web-based network amongst enforcement authorities.
4. Information on CITES permits to be made available on the MA and SA websites for easy online checking by MA and customs in importing countries.
5. Use of electronic tracking device including bar code label, RFID and DNA tracking.
6. Make assessment on economic and financial aspects of ramin market.

C. Strategy and Action Plan

1. Progressively improve on NDF methodology with the view towards SFM (national & regional).
2. Facilitate more open access to trade statistics through better networking and collaboration with existing international cooperation framework (regional & international).
3. Create a link between producing and consuming countries to enable validation of authenticity of the permits issued (regional & international).
4. Improvement of the monitoring system from forest gate-mill-export point (national).
5. Establish link on the market demand with incentives for SFM (regional & international).

Capacity building for meeting the requirements of the inclusion of ramin in Appendix II of CITES and the coordination and cooperation for its effective implementation (Working Group 3)

A. Issues

1. Lack of skill in identification of wood species (*Gonystylus* species).
2. Inadequate of data and information sharing and exchange (statistic, distribution, trade, enforcement, silviculture, etc) among agencies.
3. Lack of coordination to translate policy into action.
4. Lack of awareness on the inclusion of ramin in Appendix II of CITES.
5. Difficulty in understanding legal and technical documents of CITES.
6. Lack of new toolkits for identification techniques for ramin based products.
7. Inadequate training modules, materials and technique for training on ramin related to CITES requirement.
8. Insufficient direct regional communication and intelligent information sharing.
9. Lack of knowledge and methodology of resource inventory.

B. Recommendations

1. Continue conducting training and providing identification manuals (especially for ramin) in various national languages for customs and enforcement officers.
2. Promote sharing and exchange of data and information (statistic, distribution, trade, enforcement, silviculture, etc) among agencies.
3. Strengthen and coordinate ability to translate policy into action including cultivating the political will to act and considering mechanism for transparency and verification.
4. Undertake awareness raising program on the inclusion of ramin in Appendix II of CITES through the mass media.
5. Translate, disseminate and adapt, as appropriate, legal and technical documents of CITES related to ramin species.
6. Develop toolkits for identification techniques for ramin based products.
7. Formulate or develop new training modules, materials and techniques for training on ramin related to CITES requirement.
8. Enhance direct regional communication and intelligent information sharing.
9. Conduct training, to increase knowledge and methodology of resource inventory for MA officers and concessionaires.
10. Enforcement by range states through internal coordination among agencies the CITES provisions

C. Strategy and action plan (at national and regional level)

1. Bring the issues on coordination and information sharing and its recommendations to the ***Tri-National Task Force on Trade in Ramin*** meeting.
2. Undertake consultation with potential donors and importing-re-exporting countries to support regional training program.
3. Continue collaboration with ITTO and CITES Secretariats to assist member states in implementing CITES requirements.

6. REGIONAL PRIORITY AND ACTION PLAN FOR RAMIN

Efforts towards the implementation of SFM and conservation by both range states, Indonesia and Malaysia, has been made. However, regional and action plan might be still possible to be further discussed. Each working group has raised the action plan and regional cooperation to enhance the achievement of CITES listing and the conservation of species. The CITES Secretariat has also elaborated the relevance of regional cooperation and action plan to the achievement of the objectives of the listing. For reference, Latin America has established the regional priority and action plan for SFM big leaf mahogany (*S. macrophylla*),

In relation to the importance of the regional priority and action plan for ramin, the Malaysian participants have delivered their view that such regional cooperation may not be an urgent issue at the moment, since the forum on ramin has been established, especially on trade through the “Tri-National Task Force on Trade in Ramin” (see Annex 11). In addition, ASEAN-Wildlife Enforcement Network (ASEAN-WEN) could also function as an important forum to share and exchange of experience in the management and conservation of wildlife species, including ramin. However, the conclusion and recommendation of previous *ITTO Expert meeting in Kuala Lumpur, 2006* remain valid for further action by range states and importing countries as in addition to those identified during this workshop, as listed below **“Issues and recommendations for regional cooperation”**.

Issues and recommendation for regional cooperation

1. Share current methodologies for forest management and inventory.
2. Develop and introduce cost-effective Reduce Impact Logging (RIL) practices.
3. Establish standard methodology for the formulation of NDFs for timbers listed in the relevant CITES Appendices.
4. Improve common reporting framework for international trade data to reconcile CITES and Customs data sets.
5. Enhance chain-of-custody (COC) mechanism and link CITES export permit to the resource management and verification of origin of ramin timber.
6. Improve inter-regional communication and cooperation among Management Authorities (MAs) through direct and regular communication.
7. Enhance inter-agency and inter-regional cooperation among stakeholders through better coordination of process for the sharing of data and experience and verification of information, including the possible use of pre-export notification protocols.
8. Improve communication and exchange of intelligence information between regional and inter-regional enforcement agencies.

CLOSING REMARKS

First of all, we would like to thank to all the participants who have given their time and effort to attend this important Asian workshop. We understand that we are all here to discuss on how our natural resource, especially ramin, could be managed in sustainable manner for the benefits of the range states and the importing countries. And I am sure, we have reached at a certain stage in our discussion, exchange of information, views during this two day workshop. I hope the issues raised, the recommendation and strategy or action plan could be further observed, synthesized and implemented. In the next opportunity, we could make evaluation on the progress of the action taken on the recommendation and action plan. In the meantime, we expect that the communication between us will still continues by all means, not limited at the formal meeting like workshop or seminar.

Finally, we hope that during your stay in Bogor, you have had good moment, even though we understand, we do not have time for other business and/or excursion or recreation during the workshop that you may expect. We would like also to apologize, if, in the organization of the workshop, there were some inconvenience.

Mr. Adi Susmianto,
Director of Center for Forest and Nature Research and Development, FORDA

Annex 1. Workshop Agenda

30 June 2009 (Tuesday)

Arrival of participants

1 July 2009 (Wednesday)

8:00 – 9:00 Registration of Participants

9:00 – 10:00 Opening session

- Brief Introduction by Master of Ceremonies
- Welcoming Remarks by ITTO Secretariat
- Opening Remark by the Senior Advisor to the Minister of Forestry, Dr. A. Fauzi Mas'ud

10:00 – 10:30 Coffee break

10:30 – 10:45 Organization and logistics

- Background, Objectives and Expected Outputs of the Workshop
- Workshop agenda and process
- Logistical matters

10:45 – 12:30 SESSION I. ITTO-CITES PROGRAM AND REVIEW OF ITS PROGRESS

Chair: Mr. Thang Hooi Chiew, Regional Coordinator for the ITTO-CITES Program, Asia

Rapporteur: Mr. Sulistyo. A Siran, FORDA

10:45 – 11:05

ITTO and CITES: Collaboration for trade in sustainably managed tropical timber species by the representative from ITTO (Ms. Tong Pei Sin)

11:05 – 11:25

Implementation of CITES for timber species by the representative from the CITES Secretariat (Ms. Milena Sosa Schmidt)

11:25 – 11:45

Overview ITTO – CITES Project in Indonesia by the representative from Indonesia (Mr. Tajudin Edy Komar)

11:45 – 12:05

Progress of the Activities Implemented in Malaysia under the ITTO – CITES Work Program 2008 by the representative from Malaysia (Mr. Ahmad Alsraf bin Ahmad Mokhtar)

12:05 – 12:30

Open Forum for Discussion

12:30 – 14:00

Lunch break

14:00 – 17:00

SESSION II. A REGIONAL STRATEGY AND ACTION PLANNING APPROACH FOR RAMIN

Chair: Dr. Teguh Rahardja

Rapporteur: Dr. Hesti Lestari Tata, FORDA

14:00 – 14:30

*Ecological and Management Status of *Gonystylus* spp. (Ramin) in Malaysia* by the representative from the Forest Research Institute Malaysia (FRIM) (Mr. Ismail Parlan)

14:30 – 15:00

Coordination and Cooperation for the Effective Implementation of the Inclusion of Ramin in Appendix II of CITES by the representative from CITES MA-Indonesia (Dr. Tonny Soehartono)

15:00 – 15:30

*Highlight of Previous ITTO Expert Meeting on the Effective Implementation of the Inclusion of Ramin (*Gonystylus* spp) in Appendix II of CITES*

15:30 – 15:45

Coffee break

15:45 – 16:45

Open Forum for Discussion

16:45 - 17:00

Preparation for Working Group

18:30

Welcome Reception (Hosted by ITTO)

2 July 2009 (Thursday)

09:00 – 12:30 SESSION III. WORKING GROUPS (Break-out Sessions)

09:00 – 10:00

Working Group 1: Ecological and Management Status of Ramin (*Gonystylus* spp.)

Facilitator: Mr. Ismail Parlan (Malaysia)
Rapporteur: Dr. Teguh Triono (Indonesia)

Working Group 2: Review of Market and International Trade in Ramin

Facilitator: Ir. Zulfikar Adil, M.BM, (Indonesia)
Rapporteur: Ms. Noraini Shaari (Malaysia)

Working Group 3: Capacity Building for Meeting the Requirements of the Inclusion of Ramin in Appendix II of CITES and the Coordination and Cooperation for its Effective Implementation

Facilitator: Mr. Anwar (Indonesia)
Rapporteur: Mr. Sulistyono A Siran, (Indonesia)

10:00 – 10:15 Coffee break

10:15 – 12:30 Working Groups (Break-out Sessions continue)

12:30 – 13:30 Lunch break

13:30 – 15:00 SESSION IV. REPORTS OF WORKING GROUPS

Chair: Dr. Tonny Soehartono, CITES MA - Indonesia
Rapporteur: Prof. Dr. I Nengah Surati Jaya, IPB

13:30 – 14:00
Report presentation by Working Group 1

14:00 – 14:30
Report presentation by Working Group 2

14:30 – 15:00
Report presentation by Working Group 3

15:00 – 15:15 Coffee break

- 15:15 – 16:15** **Panel Discussion on Setting Priorities and Action Plan by the Regional Coordinator for the ITTO-CITES Program, Asia; representatives from the ITTO and CITES Secretariats; and Indonesia and Malaysia**
- 16:15 – 17:30** **Meeting conclusions and recommendations by Regional Coordinator for the ITTO-CITES Program, Asia (Thang Hooi Chiew)**
- 17:30** **Closing Remarks**

3 July 2009 (Friday)

Departure of participants

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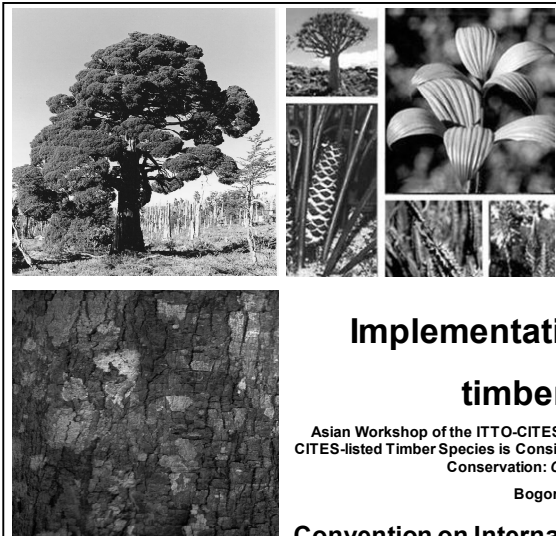
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Annex 3. Implementation of CITES for Timber Species by *Milena Sosa Schimdt*



**Implementation of CITES for
timber species**

Asian Workshop of the ITTO-CITES Project on Ensuring International Trade in
CITES-listed Timber Species is Consistent with their Sustainable Management and
Conservation: *Gonystylus* spp. (Ramin)
Bogor, 1-2 July 2009

**Convention on International Trade in Endangered
Species of Wild Fauna and Flora**

Tree species in CITES

- In this presentation we shall look at the following aspects:
 - History of tree species listings
 - Special provisions for timber
 - Current trend in of CITES timber trade
 - The case of *Gonystylus* spp.

Tree species in CITES (History)

- On 1 July 1975, 18 species were included in the Appendices
- Most of the species that were not in trade have been deleted since, but some still remain from that time
- To date, around 100 species traded for their timber are included in the CITES Appendices.

Tree species in CITES (History)

- The interest to include timber species in the Appendices increased in the beginning of the nineties
- Proposals to include timber species in Appendix II have been fiercely opposed and some countries have been using Appendix III as an alternative since the end of the 90s.

Tree species in CITES

e.g. *Gonystylus spp.*

Appendix II requires making a non-detriment finding, requires the assurance of the legal origin of the timber, and has fostered international cooperation (ITTO-CITES cooperation program; ID and MY have benefited greatly).

Tree species in CITES

e.g. *Cedrela odorata*

Appendix III does not require making a non-detriment finding, requires the assurance of the legal origin of the timber, and does not foster international cooperation since its aim is for the listing country (Colombia, Guatemala and Peru) to monitor its exports.

Tree species in CITES (special procedures)

- Resolution Conf. 12.3 (Rev. CoP14) on Permits and certificates specifies
 - The possibility to extend the validity of a permit to 12 months
 - The possibility to change the destination mentioned on the permit
- These two provisions only apply to timber trade

Tree species in CITES

- Several countries are trying to implement new regulatory systems for timber species
- In many cases these new systems are highly complex and are at first the object of strong opposition from the private sector

Tree species in CITES

- One of the biggest problems is the institutional weakness
- The communication between MA and SA is often very weak
- Frequently the scientific information to allow the development of management programmes is not available or up to date

Tree species in CITES

- The private sector is playing an increasing role in supporting the work of the MA and the SA
- It is possible that traders make strong commitments to show that they are willing to cooperate, e.g. through the funding of projects, technology, codes of conduct, registers, etc

Tree species in CITES

- The case of ramin and the recommendations made by Malaysia, Indonesia and Singapore at their first tri-national ramin workshop held in Kuala Lumpur on 15-16 April 2004 are a good example of regional coordination and cooperation

The case of *Gonystylus spp.*

- All Populations of *Gonystylus spp.* are listed in CITES Appendix II
- annotation #1 that designates all parts and derivatives, except:
 - a) seeds, spores and pollen (including pollinia);
 - b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
 - c) cut flowers of artificially propagated plants; and
 - d) fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*.

Working towards a sustainable use of
Gonystylus spp.

- A useful tool used to strengthen the control of the trade in ramin in the case of MY and ID has been the annually set export quota:
- For 2009: ID: 8 000 m³ of *Gonystylus bancanus* on finished products: mouldings, dowels, door leaf, etc.
- and MY has set 20 000 m³ of 'parts and derivatives' of *Gonystylus spp.* from Peninsular and Sabah; and 3 178 m³ for the same type of specimens from Sarawak

Working towards a sustainable use of
Gonystylus spp.

- The export quota is a powerful tool to control and monitor the use of a natural resource. However, as important as the export quota is the harvest quota or, in the case of timber species, logging quota.
- In this context, the use of yield rates and the monitoring of the timber production can strengthen the quality of the NDF made by the Scientific Authority.

Working towards a sustainable use of
Gonystylus spp.

- The development of methodologies to assess timber yield rates can improve management of export quotas for timber species.
- The use of conversion factors can link harvest volumes approved by the Scientific Authorities to export shipments.

Working towards a sustainable use of
Gonystylus spp.

- A wide variation exists in potential results and methodologies for determining conversion factors given differences in species, harvest and production systems, mill efficiency, sampling sizes, and nature of the final product;
- So conversion factors must be applied cautiously and only if needed

Making and NDF for a tree species

- An international expert workshop on NDF held in November 2008 in Cancún, had the *objective to enhance CITES Scientific Authorities' capacities, particularly those related to the methodologies, tools, information, expertise and other resources...*

Making and NDF for a tree species

- The Trees Working Group agreed that these four elements can be addressed as follows:

1- the SA should consider the harvest regime and determine whether specimens are taken from a plantation or from the wild. If taken from a plantation, the NDF can be made relatively quickly since it considers that the plantation has been verified by the Management Authority and that the removal of the specimens does not affect populations in the wild (therefore this should imply a low risk of the operation).

Making and NDF for a tree species

- The Trees Working Group agreed that these four elements can be addressed as follows:

2- If specimens come from the wild, the Scientific Authority should take a more cautious approach and consider whether the harvest implies removal of the whole tree or not.

Making and NDF for a tree species

3- If removal of the specimen does not result in the death of the tree (as in the case of some medicinal trees and agarwood-producing species), the guideline of maintaining the resource in the population over time and through a recovery period between harvests should be followed, with the objective of minimizing the impact of harvesting on species populations in the wild.

Making and NDF for a tree species

4- If removal of the specimen results in the death of the tree, then adherence to comprehensive guidelines (encompassing information available, possible methodologies, etc.) is required. The essential elements of such guidelines are proposed by this Working Group in the full report that can be consulted at the following link:

http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/taller_ndf.html

Logging and processing

- Establishing quotas necessarily implies an accurate knowledge of the populations.
- When quotas are established without knowledge of populations and based solely on commercial and pre-commercial stocks, it is impossible to ensure the impact that exports will have on the populations.
- Likewise, establishment of quotas must be done at the management unit level, since the characteristics of the populations vary.

Logging and processing

- The analysis of harvesting/export quotas must be based on the available yield studies (i.e., methodology proposed by Dr. James Grogan), so as to reflect losses inherent to processing round wood into sawn timber; export quality percentage; stem/bole quality (holes or poor condition) in order to identify physical and pathologic defects, and elements such as bark thickness, stem shape and others relating to size and age.
- Failure to take these values into consideration will probably result in an overestimation of export quotas.

SC58

- at its 57th meeting (SC57, Geneva, July 2008) the Standing Committee requested that the Secretariat consult with concerned Parties regarding any information it received on illegal trade in ramin and report at SC58.

SC58

- The SC57 requested that exporting range States submit written reports on trade in ramin for consideration at its 58th meeting (SC58).
- These reports should provide information on progress and results of projects undertaken under the ITTO-CITES timber program and the activities of the Tri-National Task Force on Ramin.

SC58

- Malaysia and Indonesia have not submitted these reports and can provide an oral report at SC58.
- Both ID and MY should insert in their oral reports the progress made under the ITTO-CITES programme.
- Indonesia can also mention the organization and hosting of this workshop

Summing up

- Appendix II requires making a NDF, requires the assurance of the legal origin of the timber, and fosters international cooperation (ITTO-CITES cooperation program: ID and MY have benefited greatly)

Summing up

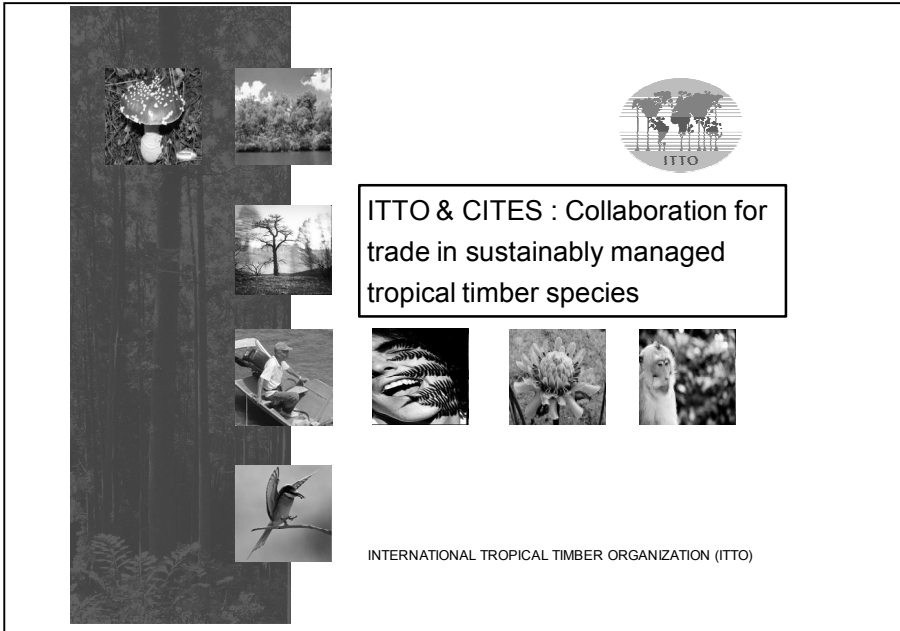
- The experience of the Ramin Tri national task force was very fruitful, would you consider useful the adoption of an action plan for ramin to propose to CoP15?

Summing up

- Please prepare your oral report for SC58. Your country has made great efforts and made progress in the implementation of CITES for ramin, it is important that you show this commitment and progress to other Parties to CITES so they can learn from you

Thank you very much !

Annex 4. ITTO & CITES: Collaboration for Trade in Sustainably Managed Tropical Timber Species by *Tong Pei Sin*



Background

- ITTO mandate to promote tropical SFM highly relevant to CITES listed timber species
- Collaboration since early 1990s through participation in and support of CITES Timber Working Group and later Mahogany Working Group; several ITTC decisions

Background

- Collaborative activities include first Ramin expert meeting (Malaysia, May 2006), co-sponsoring Mahogany Working Group meetings (eg Peru, June 2006)
- Worked together in 2005-06 to develop a large capacity building project

ITTO-CITES Programme

Ensure international trade in CITES-listed tropical timber species is consistent with their sustainable management and conservation

Partner: 

ITTO-CITES Programme

Major activities:

- Development of national/regional plans and projects
- Design of resource inventories
- Develop/implement improved management plans
- Undertake case studies on and develop guidelines for making NDFs

ITTO-CITES Programme

Major activities (*cont'd*):

- Develop cost-effective regulatory systems for endangered timber species (tracking, market studies, incentives)
- CITES training workshops
- Other relevant activities developed in liaison with range states

ITTO-CITES Programme

Funding and eligibility

- Program sought funding through ITTO's 2006-07 and 2008-09 biannual work plans
- Total budget USD 3.75 million (3 million euro in 2006) over 3.5 years

ITTO-CITES Programme

Funding and eligibility

- 2.4 million euro grant from European Commission approved in late 2006, funds received and activities commenced in 2007 with recruitment of regional coordinators
- Remaining (and additional) funds pledged at ITTO Council Sessions (USA, Japan, Norway, New Zealand)

ITTO-CITES Programme

Funding and eligibility

- Funds cover 3 tropical regions – Africa, Latin America and Asia, focus of assistance on main exporters (*Pericopsis elata* – afrormosia; *Gonystylus* spp. – ramin; *Swietenia macrophylla* – mahogany)
- Workshops and training materials will benefit all countries (including importers)

ITTO-CITES Programme

Current status

- [Activities underway in Brazil \(3\), Cameroon \(2\), Indonesia \(4\), Malaysia \(5\), Democratic Republic of Congo \(2\)](#)
- MOUs about to be finalized in Bolivia (2), Brazil (1), Republic of Congo (1) and Peru (1)

ITTO-CITES Programme

Current status

- Several regional workshops convened/planned (develop afrormosia and ramin action plans; Mahogany Working Group; log-sawn conversion factors for mahogany and cedrela)
- Strong interest from target countries; program funds will be largely exhausted by activities underway/proposed; additional funding being sought to meet demand; program will be on-going

Project Management

- Independent monitoring
 - 1st in June 2008, 2nd in September 2009
- Advisory Committee meeting
 - 1st in October 2008, 2nd in July 2009

Project Communication



THANK YOU

www.itto.or.jp

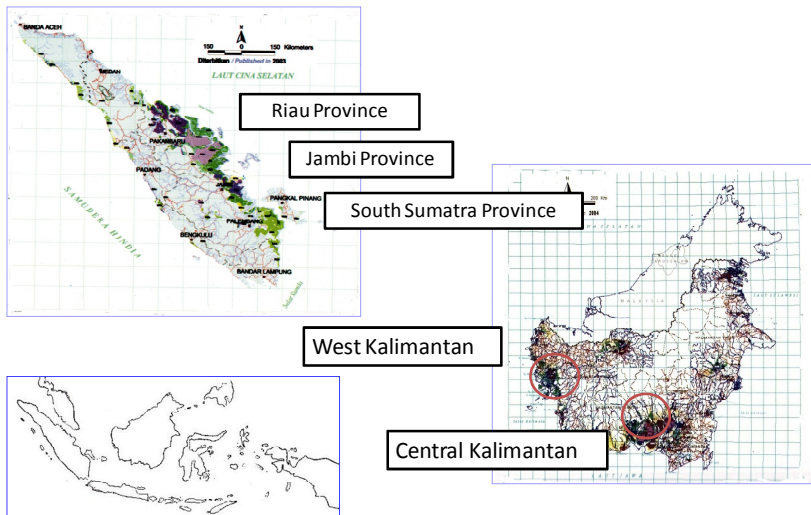
Annex 5. Overview ITTO CITES Project in Indonesia by *Tajudin Edy Komar*

Overview ITTO-CITES Project in Indonesia

“Ensuring international trade in CITES-listed timber species is consistent with their sustainable management and conservation”

Asian Workshop of the ITTO-CITES Project on Ensuring international trade in CITES-listed timber species is consistent with their sustainable management and conservation: *Gonystylus* spp (Ramin), Bogor, 1-2 July 2009

DISTRIBUTION OF RAMIN IN INDONESIA



Major challenges to achieve sustainable management and conservation of ramin:

- Updating biological-ecological data (resource base)
- Improve implementation of silvicultural system
- Promote seedling propagation and plantation activities
- Promote the implementation of rules and regulation, including CITES

Scarcity of planting materials is a major obstacle in plantation activities



Current efforts to achieve Sustainable Management and Conservation

ITTO-CITES Project: Ensuring International Trade in CITES-Listed Timber Species is consistent with their sustainable management and conservation”

ITTO-CITES Project Work Program 2008

1. Improving inventory design for the estimation of growing stock of ramin in PSF
2. Assessing silvicultural system on ramin: Review on the current practice and re-vitalization of PSP
3. Exploratory assessment on the population distribution and potential uses of *Gonystylus*, *Non-bancanus* species
4. NW: identification of information gaps toward sustainable management and conservation of ramin and thematic programs to be included into 2010 program

Executing Agency:

Center for Forest and Nature Research and Development (CFNCRD)-FORDA

In cooperation with:

- Silviculture division, CFNCRD
- Faculty of Forestry, Bogor Agri. Univ.(IPB)
- Biotechnology and Tree Improvement – Yogyakarta
- CITES-Scientific Authority (LIPI)
- CITES-Management Authority

Progress of each project activity

1. Improving inventory design for estimating standing stock of ramin

Background problem

- Reliable and accurate resource base data
- Poor accessibility (high cost for ground survey)
- Could be over-estimate of stock

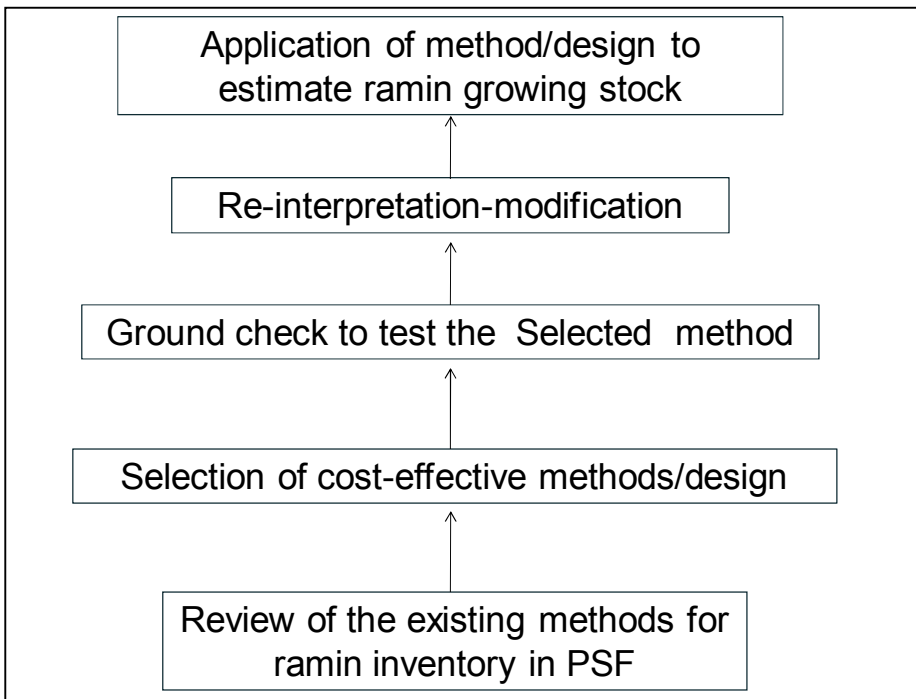
-
- Current remote sensing technology could provide opportunities/possibilities for estimating population distribution and standing stock

Objective:

To obtain relatively more accurate data on ramin by using remote sensing technology

Outputs:

1. Inventory design (method) to estimate population distribution and growing stock
2. Estimated growing stock



Brief Progress

Technical workshop 12 May 2009 : Review of existing design, method and techniques to estimate growing stock

Selection of method, provision of satellite images and interpretation

On-going ground check to test the combination between terrestrial and remote sensing approaches

Brief Progress... Cont'd

Proceeding and Technical Report:

- (1). Proceeding of technical workshop: Review on the design and methodology to estimate population distribution and standing stock of species growing naturally in PSF
- (2). Executive Summary
- (3). Technical Report: Selection of methods, provision of satellite images and interpretation

Brief results

Current uses of satellite imageries:

- Land cover classification and land cover change detection
 - High-resolution satellite imageries could provide some forest stand variables, such as crown closure, crown density, crown diameter with better accuracy
-
- Still have limitation to detect individual tree species (i.e chlorophyll content)

Brief results Cont'd

Opportunities:

- Remote sensing-multistage sampling to estimate standing stock
 - Remote sensing technology with hyper-spectral technology to differentiate species and therefore for standing stock estimation
-
- Standing stock will be estimated by using hybrid between terrestrial and remote sensing approach

2. Assessing silvicultural system on ramin:
Review on the current practice and re-
vitalization of existing permanent sample plots

Background problems

- TPTI-Selective Cutting and Replanting is used as reference guide for logging in PSF
 - Information and understanding on PSF population dynamics is still insufficient
-
- Pre-harvest inventory and residual stand maintenance
 - Monitoring and supervision is not fully executed

Objective:

To improve ramin forest management through the review and evaluation of current silvicultural practices and better understanding on population dynamics of PSF

Outputs:

1. Review and evaluation on silvicultural system and practice
2. Draft revision on silvicultural system in PSF
3. Review, re-design and re-establish permanent sample plots to be used for long term ecological studies

Brief Progress

Collection of rules and regulation

Field data collection for evaluation of practice of silviculture

Presentation of the review and finding at Project expose 16 June 2009:

Limitation:

- Field assessment only in active logging operation (PT DRT)
- None of concession is currently operating in Kalimantan
- Very poor access to evaluate LOA



Brief Progress Cont'd

Review and Technical Report:

- (1). Review on the silvicultural system and practice
- (2). Executive Summary
- (3). Revised draft of silvicultural system and harvest
- (4). Selected long term ecological study sites in PSF (next)

Brief results

Current practices of silvicultural system:

- Ramin has unique stem diameter distribution
- Require modification from the existing system to fit with the PSF ecosystem
- Require post harvest replanting
- Require method of post harvest inventory and monitoring
- Require special treatment based on species composition
- Require special treatment to protect CITES-listed or highly protected species in the certification scheme

3. Exploratory assessment on the population distribution and potential uses of Non-*Gonystylus bancanus* species

Background problem

- Listing into CITES Appendix as a genus *Gonystylus*, which consists of appr 30 species
- Only one species, *G bancanus*, has been extensively studied and explored its ecological distribution, conservation and economic value
- Other Non-*G bancanus* species remain unknown their population distribution and potential uses

Objective:

To explore and to obtain information on the current status of *Gonystylus* non *G.bancanus* species, esp. population distribution, habitats and growing stocks

Outputs:

1. State of the art review on *Gonystylus* non-*bancanus* species
2. Current population distribution, habitat and growing stock

Brief Progress

Review on existing literature, herbarium specimen and related documents

Presentation of the finding in Technical workshop
24-4-2009

Review and Technical Report:

- (1). Review on the *Gonytylus* Non-*Gonystylus bancanus* species
- (2). Executive Summary
- (3). Exploratory assessment through field survey in the pre-selected sites

Brief results

Current knowledge:

- From nearly 30 species, approximately 6 species are known to be commercially valuable, may have been entering the international trade as single species and or mixed light hardwood (*G bancanus*, *G. affinis*, *G forbessi*, *G macrophylla*, *G maingayi*, *G velutinus*). *G micranthus* and *G xyclocarpus* are recorded as local use
- The ecological distribution and conservation status remain unknown

Opportunity:

Ecological distribution and potential uses are expected to be known through this field exploration

4. NW: identification of information gaps toward sustainable management and conservation of ramin and thematic programs to be included into 2009-2010 program

Bogor, 21-22 January 2009

- List of information gaps needed to be filled to achieve SFM and conservation of ramin
- List of thematic programs (activity) to be included into WP2009-2010 ITTO-CITES Project

Cont'd from ...

- Information gaps on biology, ecology and silviculture
- Information gaps on policy, trade and CITES implementation
- Administrative and legal provision
- Recommended Activities (Thematic programs)

Proceeding and Report:

- Identifikasi gap informasi menuju pengelolaan hutan ramin secara lestari (Indonesian version)
- Information gaps toward sustainable management and conservation of ramin (English version, summary)

Submitted proposed Activities for the 2009-2010 Workprogram

Activity 1. The development of mass propagation technique for ramin by establishing ramin plant genetic conservation gardens and fogging nursery system, by CFNCRD-FORDA

Content of Proposed Activity 1

1. Conserving remaining plant genetic resources in conservation garden
2. Scale-up macro-propagation using stem (shoot) cutting for continues production of planting materials



Macro-propagation (stem and shoot cuttings) using fogging system (*KOFFCO*)

*Evaluation 11 weeks:
Root formation 98%*

*Other similar results:
KOFFCO Banjarbaru*



Activity 2. Review on ramin harvest and trade:
CITES-NDF implementation, Tri-National Taskforce
and trade data statistic monitoring, by CITES-MA
(Dit. BiodiCon), lead agent

Content

1. Review on NDF and CITES Implementation
2. Review of TOR of Tri National Task Force on ramin
3. Review ramin trade data statistic and monitoring



Thank you

Annex 6. Progress of the Activities Implemented in Malaysia under the ITTO–CITES Work Program 2008 by *Ahmad Alshraf bin Ahmad Mokhtar*



Progress of the Activities Implemented in Malaysia under the ITTO – CITES Work Program 2008

Program Background

- ▶ Under the Malaysia's Work Program for Year 2008, five Activities have been approved
- ▶ Total cost of the five projects is estimated to be US\$ 722,388:
 - ITTO = US\$ 443,570
 - Malaysia = US\$ 278,818
- ▶ Agreement was signed on the 29 October 2008

List of Activities under ITTO–CITES 2008

- ▶ **Activity 1** – Non-detriment Findings Report on *Gonystylus bancanus* – A Quantitative Assessment of *G. bancanus* in two selected Permanent Forests of Sarawak
- ▶ **Activity 2** – The Quantification of Dry and Wet Inland *Gonystylus* spp. (Ramin), *Aquilaria* spp. (Agarwood) and *Intsia* spp. (Merbau) in Peninsular Malaysia
- ▶ **Activity 3** – 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

List of Activities under ITTO–CITES 2008

- ▶ **Activity 4** – The Development of *Gonystylus* spp. (Ramin) Timber Monitoring System Using Radio Frequency Identification (RFID) in Peninsular Malaysia
- ▶ **Activity 5** – Developing DNA Database for *Gonystylus bancanus* in Sarawak

Malaysia's Work Program for Year 2008

No.	Project Title	Executing Agency	Duration (months)	Estimated Budget (USD)		
				ITTO Contribution	Government of Malaysia Contribution	Total
1.	Non-detriment Findings Report on <i>Gonystylus bancanus</i> – A Quantitative Assessment of <i>G. bancanus</i> in two selected Permanent Forests of Sarawak.	Forest Department and Sarawak Forestry Corporation	12	24,900	30,415	55,315
2.	The Quantification of Dry and Wet Inland <i>Gonystylus</i> spp. (Ramin), <i>Aquilaria</i> spp. (Agarwood) and <i>Intsia</i> spp. (Merbau) in Peninsular Malaysia.	Forestry Department Peninsular Malaysia (FDPM)	15	131,800	66,230	198,030

Malaysia's Work Program for Year 2008

No.	Project Title	Executing Agency	Duration (months)	Estimated Budget (USD)		
				ITTO Contribution	Government of Malaysia Contribution	Total
3.	Generation of spatial distribution maps of <i>Gonystylus bancanus</i> (Ramin) using hyperspectral technology and determination of sustainable level of harvest of Ramin in production forests of Peninsular Malaysia.	Forest Research Institute Malaysia (FRIM)	24	131,000	52,050	183,050
4.	The Development of <i>Gonystylus</i> spp. (Ramin) Timber Monitoring System Using Radio Frequency Identification (RFID) in Peninsular Malaysia.	Forestry Department Peninsular Malaysia (FDPM)	8	103,200	70,910	174,110

Malaysia's Work Program for Year 2008

No.	Project Title	Executing Agency	Duration (months)	Estimated Budget (USD)		
				ITTO Contribution	Government of Malaysia Contribution	Total
5.	Developing DNA Database for <i>Gonystylus bancanus</i> in Sarawak.	Forest Department and Sarawak Forestry Corporation	12	52,670	59,213	111,883
TOTAL				443,570	278,818	722,388

**Activity 1 – Non-detriment
Findings Report on *Gonystylus
bancanus* – A Quantitative
Assessment of *G. bancanus* in
two selected Permanent Forests
of Sarawak**

Activity 1 Background

Objectives:

- i. To collect data on the status and stocking of *G. bancanus* in the production forests of Sarawak.

Expected Output:

- i. Status and stocking of *G. bancanus*.
- ii. Sustainable harvest quota of *G. bancanus*.

Activity 1 Progress

- ▶ Forest inventory was only conducted in the Kayangeran Forest Reserve from 21 March to 19 April 2009 as the peat swamp forests were flooded in early 2009 due to the Monsoon season.

38 transects were established and enumeration in the various forest types found in the Reserve as well as data entry and editing of the field data for further assessment had been completed.

- ▶ Another forest inventory for the Saribas Lupar Protected Forest has been carried out starting June 2009.

Field work activities



Activity 2– The Quantification of Dry and Wet Inland *Gonystylus* spp. (Ramin), *Aquilaria* spp. (Agarwood) and *Intsia* spp. (Merbau) in Peninsular Malaysia

Activity 2 Background

Objectives:

- i. To collect information on the distribution, status and stocking of dry and wet inland *Gonystylus* spp. (Ramin), *Aquilaria* spp. (Agarwood) and *Intsia* spp. (Merbau) based on the Fourth National Forest Inventory information in Peninsular Malaysia; and
- ii. To establish ten (10) permanent sample plots (PSPs) to periodically monitor the growth, mortality and recruitment of *Gonystylus* spp. (Ramin) in Peninsular Malaysia.

Activity 2 Background

Expected Output:

- i. To improve the knowledge of forest officers and contractors in the identification of all dry and wet inland *Gonystylus* spp. (Ramin), *Aquilaria* spp. (Agarwood) and *Intsia* spp. (Merbau).
- ii. To comprehensively assess the biological and ecological, as well as the distribution and stocking of dry and wet inland *Gonystylus* spp. (Ramin), *Aquilaria* spp. (Agarwood) and *Intsia* spp. (Merbau) based on the Fourth National Forest Inventory data for future sectoral planning and forest management.
- iii. To determine future sustainable harvest level of *Gonystylus* spp., *Aquilaria* spp. and *Intsia* spp. so as to enhance their conservation status within production forests.
- iv. To provide sufficient and credible information on the stocking and growth of *Gonystylus* spp. (Ramin) to further enhance its management system and future utilization, and in sustainable harvest prediction.

Activity 2 Progress

- ▶ Based on Fourth National Forest Inventory that was conducted in Peninsular Malaysia from 2002–2004, a total of 59 sample plots containing *Gonystylus* species have been identified for re-sampling. These included 20 plots containing *Aquilaria* species and 15 plots containing *Intsia* species.
- ▶ A course on inventory design and identification of *Gonystylus*, *Aquilaria* and *Intsia* species was also conducted from 25 to 29 May 2009 where 30 participants from the Forestry Department Peninsular Malaysia as well as those from the contractor who would assist the Forestry Department in the field work were trained.

Course on inventory design and identification of *Gonystylus*, *Aquilaria* and *Intsia* species



Activity 3– 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

Activity 3 Backgorund

Objectives:

- i. To generate spatial distribution maps of ramin in a cost effective manner through the use of hyperspectral technology in Peninsular Malaysia.
- ii. To determine sustainable level of harvest of ramin that enhances their conservation status in production forests of Peninsular Malaysia.

Expected Output:

- i. Spectral library, spatial distribution maps and non-spatial database for ramin in Peninsular Malaysia established.
- ii. The population dynamics and sustainable harvest levels of ramin in natural production forests determined which is useful for sustainable management practices.

Activity 3 Progress

- ▶ Presently, the data provider is in the process of finalizing the technical specifications for hyperspectral data acquisition while the Forest Research Institute Malaysia (FRIM) is taking steps to purchase a Spectroradiometer to expedite the study of spectral signature.
- ▶ 35 percent of the study area had been surveyed, with the completion of the field activity to map ramin distribution in Compartment 77, Pekan Forest Reserve, Pahang.
- ▶ An estimated 93 ramin trees have been mapped in a GIS database.
- ▶ The project is on schedule as envisaged in the Work Plan and no further technical barriers are foreseen at this stage of its implementation.

Field work activities



Activity 4– The Development of *Gonystylus* spp. (Ramin) Timber Monitoring System Using Radio Frequency Identification (RFID) in Peninsular Malaysia

Activity 4 Background

Objectives:

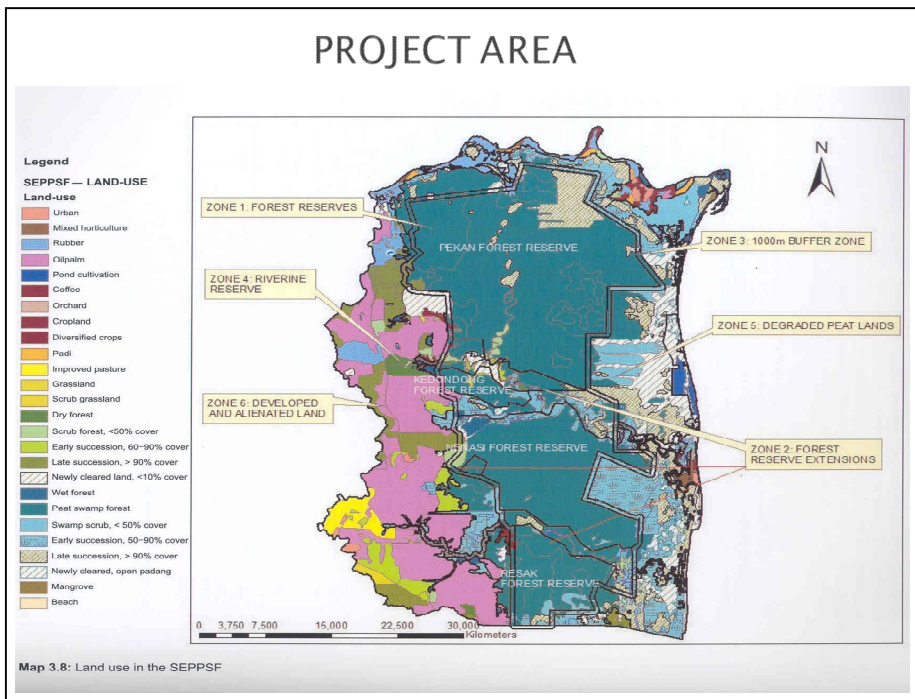
- i. Development of a customized cost-effective *Gonystylus* spp. (Ramin) Timber Monitoring (RTRfid) System Using Radio Frequency Identification (RFID) in Peninsular Malaysia.
- ii. Development of an automated detection and notification mechanism for tracing non-compliances using gentry (gate) system in Peninsular Malaysia.

Expected Output:

- i. To strengthen and improve the efficiency of tree marking operations and forest revenue system, as well as to expedite the issuance removal passes during the transport of timber from logging areas to mills using a customized cost-effective RFID based timber monitoring system.
- ii. To improve the efficiency of forest enforcement activities and non-compliance detection using customized cost-effective electronic data logger and gentry (gate).

Activity 4 Progress

- ▶ The quotations from a number of interested companies had been submitted to the Tender Committee.
- ▶ While waiting for the decision from the Tender Committee for the appointment of the successful company to assist the Forestry Department Peninsular Malaysia to implement the planned activities, actions have been taken to source the type of RFID tags and handheld computers that are suitable for use in peat swamp forests.
- ▶ Currently, boundary demarcation of the licensed/study area is in progress.



Activity 5 – Developing DNA Database for *Gonystylus bancanus* in Sarawak

Activity 5 Background

Objectives:

- i. To study the genetic variation and differentiation of *G. bancanus* population in Sarawak.
- ii. To develop a DNA database for *G. bancanus* to enhance efforts for tracing and tracking of *G. bancanus* timber.

Expected Output:

- i. DNA for population of PSF with Ramin trees extracted.
- ii. Genetic variation and genetic differences within and among population determined.
- iii. Genotype profile of sampled trees for each population established.

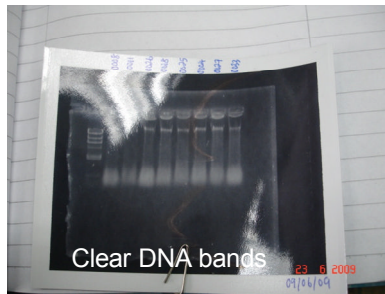
Activity 5 Progress

- ▶ In February 2009, 90 leaf samples were collected from 90 individual trees in Sedilu Forest Reserve, Lingga Water catchment area and Ulu Sg. Serapau, Lingga, where extraction of DNA was completed.
- ▶ In April 2009, extraction of 30 and 69 samples collected from the Kayangeran Forest Reserve and the Loagan Bunut National Park respectively was also completed.
- ▶ Extraction of the 90 samples collected from the Maludam National Park in May 2009 is currently ongoing while new sample collection in the Naman Forest Reserve has been carried out since June 2009.

Activity 5 Progress

- ▶ All extracted DNA were stored in the freezer at -80°C with some samples showing viscous DNA band indicating the presence of small level of secondary compound. In this regard, the 'contaminated' DNA will be purified using the purification kit.

Field work activities



Closing

- ▶ Malaysia is in progress of preparing the activity proposals to be implemented under the ITTO-CITES Program 2009-2010.
- ▶ Malaysia is looking forward to collaborate again with ITTO-CITES in ensuring the sustainability of ramin species.

Thank you

Annex 7. Ecological and Management Status of Ramin (*Gonystylus* spp.) in Malaysia by *Ismail, P., Khali Aziz, H., Ahmad Alsfaf, A.M., Koh, H.L., Nik Mohd Shah, N.M., Norchahaya, H., Aimi Lee, A. & Ngui, S.K.*

Abstract

Ramin (Gonystylus spp.) is one of the important forest tree species that is currently being utilized in Malaysia. In fact, ramin timbers have been exported by mainly Indonesia and Malaysia, which either use for light construction or furniture making purposes. There are 31 species of Gonystylus, in which seven species can be found in Peninsular Malaysia, 13 in Sabah and 25 in Sarawak. Out of the 31 species, G. bancanus is the most well-known species which represent about 80% of ramin trading in Malaysia. Naturally, this species preferred peat swamp forests, though a study shows it could also survive in non-peat soil areas. Therefore, ecological information and management of the G. bancanus have been given special attention by the forest managers and researchers in Malaysia. This paper highlights some important ecological information of G. bancanus such as it phenological behaviors and habitat specialization and site-specific management of peat swamp forests in different states of Malaysia. A case study on optimum harvesting for sustainable production of ramin in Pekan Forest Reserve in state of Pahang is presented and discussed in this paper.

Keywords: Gonystylus bancanus; peat swamp forest; optimum harvesting; reduced impact logging; Pekan Forest Reserve, Pahang.

Introduction

Gonystylus spp. (ramin) represents among the main important timber species produced by Malaysia. Out of six commercial species of *Gonystylus* spp., *G. bancanus* contributes about 80% of the ramin timbers. This species is confined in peat swamp forests (PSFs). Most of the timber is extracted from the permanent reserve forests (PRF) designated for sustainable timber production. In 2003, there were about 190,000 ha of PSFs in Peninsular Malaysia.

The South East Pahang Peat Swamp Forest (SEPPSF) with an area of about 97,000 ha are regarded as the largest intact PSF in this region (UNDP/GEF 2003). It is the main source of ramin timbers for Peninsular Malaysia, contributing around 90% of the total timber from PSF (Anon 2008). Other major areas of PSF in Peninsular Malaysia are situated in the states of Johore (3,796 ha), Selangor (75,763 ha) and Terengganu (13,757 ha). At the end of 2007, the total area of PSFs for Sabah and Sarawak were estimated at 0.12 million ha and 0.94 million ha, respectively. Main PSF distribution in Malaysia is shown in Figure 1.

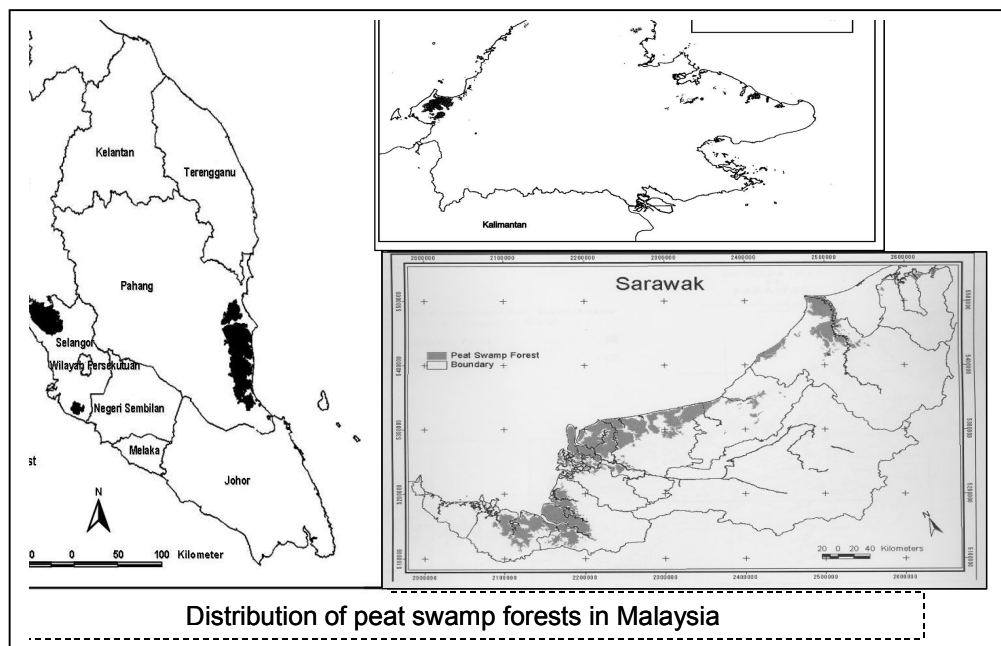


Figure 1. Distribution of main peat swamp forests in Malaysia

Genus of *Gonystylus*

As indicated in Table 1, there are seven species of the genus *Gonystylus* in Peninsular Malaysia (Wyatt-Smith 1999). Among the 31 extant species of *Gonystylus* (Table 2), apart from the seven species in Peninsular Malaysia, 13 can be found in Sabah and 25 in Sarawak (MTIB 2004; Soerianegara & Lemmens 1994).

Table 1. Species of *Gonystylus* in Peninsular Malaysia

No.	Species	Vernacular name (Peninsular Malaysia)	Forest type
1	<i>Gonystylus acuminatus</i>	–	dry inland forest
2	<i>G. affinis</i>	Ramin dara elok	dry inland forest
3	<i>G. bancanus</i>	Ramin melawis	fresh water and peat swamp forests
4	<i>G. brunnescens</i>	Ramin daun tebal	dry inland forest
5	<i>G. confusus</i>	Ramin pinang muda	dry inland forest
6	<i>G. macrophyllus</i>	–	dry inland forest
7	<i>G. maingayi</i>	Ramin pipit	dry inland, fresh water and peat swamp forests

Sources: Soerianegara and Lemmens (1994); Wyatt-Smith (1999).

Table 2. Distribution of *Gonystylus* species in South East Asia region

No.	Species	Distribution
1	<i>Gonystylus acuminatus</i> Airy Shaw	South and East Borneo, Peninsular Malaysia, Sumatra
2	<i>G. affinis</i> Radlk.	Peninsular Malaysia, Southwestern Sarawak, possibly West Kalimantan
3	<i>G. areolatus</i> Domke ex Airy Shaw	South and East Borneo
4	<i>G. augescens</i> Ridl.	Kuching, Singkawang-Benkayang-Mampawah
5	<i>G. bancanus</i> (Miq.) Kurz	Southeastern Peninsular Malaysia, Southeastern Sumatra, Bangka, Borneo, Philippines
6	<i>G. brunnescens</i> Airy Shaw	Eastern Peninsular Malaysia, Borneo
7	<i>G. calophylloides</i> Airy Shaw	Borneo
8	<i>G. calophyllus</i> Gilg.	Southwestern Sarawak
9	<i>G. confusus</i> Airy Shaw	Peninsular Malaysia, probably Northern Sumatera
10	<i>G. consanguineus</i> Airy Shaw	Borneo
11	<i>G. costalis</i> Airy Shaw	Borneo
12	<i>G. decipiens</i> Airy Shaw	Borneo
13	<i>G. eximius</i> Airy Shaw	Borneo
14	<i>G. forbesii</i> Gilg.	Sumatera, Siberut, Mentawai, Borneo
15	<i>G. glaucescens</i> Airy Shaw	Borneo
16	<i>G. hackenbergii</i> Diels.	Sumatra, Kalimantan, Java, Sulawesi, Irian
17	<i>G. keithii</i> Airy Shaw	Borneo
18	<i>G. lucidulus</i> Airy Shaw	Northeastern Sarawak, Brunei
19	<i>G. macrophyllus</i> (Miq.) Airy Shaw	Malesia, Solomon Islands
20	<i>G. maingayi</i> Hook. f.	Peninsular Malaysia, Sumatera, Northern Borneo
21	<i>G. micranthus</i> Airy Shaw	Sarawak, Sabah
22	<i>G. nervosus</i> Airy Shaw	Borneo
23	<i>G. nobilis</i> Airy Shaw	Sumatra, Borneo, Java, Sulawesi, Irian
24	<i>G. othmanii</i> C.S. Tawan	Sarawak
25	<i>G. pendulus</i> Airy Shaw	Southwestern Sarawak
26	<i>G. reticulatus</i> (Elm.) Merr.	Mindanao
27	<i>G. spectabilis</i> Airy Shaw	Borneo
28	<i>G. stenosepalus</i> Airy Shaw	Sarawak, Sabah
29	<i>G. velutinus</i> Airy Shaw	Sumatra, Bangka, Belitung, probably Borneo
30	<i>G. warburgianus</i> Gilg ex Domke	Sumatra, Kalimantan, Java, Sulawesi, Irian
31	<i>G. xylocarpus</i> Airy Shaw	Western Borneo (Sarawak and Western Kalimantan)

Sources: Cheksum Tawan (1999); UNEP-WCMC (2008); Soerianegara and Lemmens (1994).

***Gonystylus bancanus* (Miq.) Kurz**

Taxonomy and nomenclature

As stated by Soerianegara and Lemmens (1994), Kurz described *G. bancanus* in 1864. Other synonyms of *G. bancanus* include *G. miquelianus* Teijsm. and Binn., *G. bancanus* Gilg. and *G. hackenbergii* Diels. *Gonystylus bancanus* had been earlier described as *Aquilaria bancana* by Miquel in 1861. However, Kurz transferred it to the genus *Gonystylus* as *G. bancanus* (Miq.) Kurz.

Biology and geographical distribution

As shown in Figure 3, *G. bancanus* is a medium to fairly large tree, which can grow up to 40 m in height with approximately up to 120 cm dbh (Kartiko 2002). The trunk is branchless to 21 m high, the base sometimes fluted with numerous roots as breathing organ (Ng & Shamsudin 2001). Nonetheless, quite a number of *G. bancanus* trees in Pekan Forest Reserve (FR) have branchless trunk more than 30 m (*pers. obs.*). The surface is often cracked and shallowly fissured. The bark is greyish to red-brown, and the inner bark is reddish brown and fibrous (Faridah et al. 2005). The sapwood is white to pale yellowish cream colour (Wyatt-Smith 1999).

The leaves are thick, leathery, elliptical, oblong-oblancoate or obovate and are frequently folded lengthwise. The veins are numerous, almost parallel but not reaching the margin. The inflorescences are up to 9 cm long, densely tomentose. The flowers are arranged in 2 to 5 clusters, 1 to 1.8 cm long. The fruits are in capsules, woody, rounded and open at maturity. There are 1 to 3 seeds per fruit (Figure 4). The seed is ovoid, dark in colour and about 28 x 22 x 6 mm in size and there are about 250 - 300 seeds per kg (Kartiko 2002). Seeds of *G. bancanus* have a reasonably high percentage of germination with 95% as reported by Ismail and Shamsudin (2003) and about 63% as reported by Shamsudin (1996).

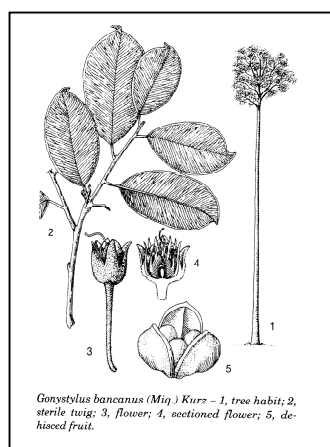


Figure 3. Habit of *G. bancanus* (Soerianegara & Lemmens 1994)



Figure 4. Fruits and seeds of *G. bancanus*

The distribution of *G. bancanus* covers Peninsular Malaysia, Borneo, Sumatra, Papua New Guinea and the Philippines (Soerianegara & Lemmens 1994; Whitmore 1984). According to Kartiko (2002), *G. bancanus* is mainly distributed in Indonesia (western and central Kalimantan, southeastern Sumatra and Bangka), Malaysia (southeastern Peninsular Malaysia, Sabah and Sarawak) and Brunei Darussalam (Figure 5). The species is a lowland species rarely found above 100 m in altitude. It grows in freshwater coastal PSFs, occasionally forming pure stands (CITES 2004).

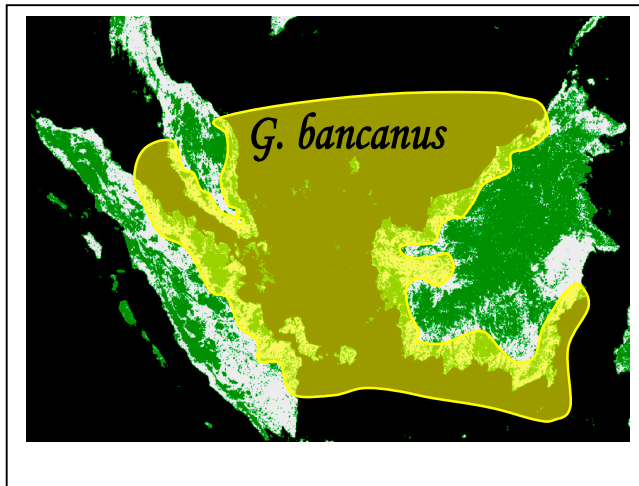


Figure 5. Main distribution range of *G. bancanus* (Kartiko 2002)

Ecology and general growth development

According to Shamsudin (1997), *G. bancanus* is abundant in primary PSF in Pahang and a dominant species in size class of ≥ 70 cm dbh. This is supported by studies of Blackett and Wollesen (2005) and Ismail et al. (2005). They reported that *G. bancanus* is the second most abundant species after *Calophyllum ferrugenum* var. *ferrugenum* in Pekan FR of trees in size class of ≥ 30 cm dbh. A study by Appanah et al. (1999) showed that the species was the third most abundant species at the Raja Musa FR,

Selangor, with total basal area of 128 m² ha⁻¹ and density of 210 stems ha⁻¹ for individuals with dbh of ≥ 15 cm.

Naturally, young individuals of this species tend to clump together within a small area underneath the mother trees (Shamsudin & Ng 1995). It is believed that limited distance of seed dispersal due to fairly large and heavy fruits might be one of the reasons that give *G. bancanus* the tendency to be clumped. Regeneration is mostly within a parameter of 10 m radius from the mother trees. The number of seedlings decreases with the increase in distance and no single seedling has been recorded at the distance of 20 m away from the mother tree (Nurul Huda 2003; Shamsudin 1996). In a ground survey of a *G. bancanus* dominant area, it was commonly observed that several big-sized trees (≥ 30 cm dbh) were naturally distributed within 10 m² (Ismail et al. 2005).

There are also some studies conducted to investigate germination rate and vegetative propagation of *G. bancanus*. Shamsudin (1996) and Ismail and Shamsudin (2003) reported on germination rate of *G. bancanus* at about 63 and 95%, respectively. The *G. bancanus* was also found possible to propagate via vegetative propagation with rooting ability of about 70% (Mohamad Lokmal et al. 1993) and 51% (Ismail & Shamsudin 2003). A related study by Guanah (2005) using misting system recorded 75 – 93% survival and rooting percentages ranging of 65 – 80%. On top of that, the species also has the potential to produce plantlets through tissue culture (Shamsudin & Aziah 1992). The characteristics are adequate to justify the availability of quality planting materials of *G. bancanus* for planting programme naturally or even as forest plantation (Ismail et al. 2007).

In addition, Ismail et al. (2007) reported that the species showed a promising growth performance in planting trials conducted at non-peat swamp areas. Eleven-year-old planted *G. bancanus* showed survival of about 52% while diameter and total height increments were of 0.95 cm year⁻¹ and 69 cm yr⁻¹, respectively. Ismail et al. (2006) have recommended *G. bancanus* for forest rehabilitation programme in PSF. This was based on a rehabilitation study conducted in highly degraded PSF in Raja Musa FR, where *G. bancanus* showed more than 70% survival. The species was also used in planting trials in secondary PSF at Sungai Karang FR, Selangor and logged-over PSF in Pekan FR, Pahang which yielded promising results of survival of more than 70%, especially those trees planted using the line-planting technique.

Phenological behaviours

A study to investigate the phenological behaviour of *G. bancanus* was conducted at Pekan FR, Pahang (Ismail 2008). Based on this study, it was determined that the flowering type for *G. bancanus* is supra-annual. It was observed that, one important factor that possibly triggers *G. bancanus* to flower was period of flooding. It was found the species flowered in a situation of prolonged flooding due to the longer monsoon season. The smallest *G. bancanus* tree observed to flower was 29.0 cm in diameter located in a logged-over site. Nonetheless, most of trees that flowered were those having larger diameter of more than 40.0 cm, either in logged-over or virgin forests.

A total of 71–86 days was recorded for full development from bud to matured fruit formation (Table 3). The budding development phase was fairly long, more than a

month; however, it took a relatively short period for the flower to become fruit of only about two weeks. Flowers of *G. bancanus* were pollinated by thrips (*Heterothrips* sp.) and stingless bees (*Trigona canifrons* and *T. laeviceps*). Identified predators of the *G. bancanus* flowers and fruits are aphids (*Aphis* sp.), Prevost's squirrel (*Callosciurus prevostii*) and Plantain squirrel (*C. notatus*). *Gonystylus bancanus* seed is dispersed naturally by normal gravity. In addition, Malayan flying fox (*Pteropus vampyrus*) was identified as the animal species that disperses the fruits. Some fruit bats (Table 4), namely *Cynopterus sphinx*, *Megaerops ecaudatus* and *Penthetor lucasi* were also identified as the potential seed dispersal agents of the *G. bancanus*.

Table 3. Development of phenological phases in 2007 fruiting season

Phenology development	Duration (range in days)	Remarks
Bud to flower	36 – 46	about 30% of buds became flowers
Flower to fruit	10 – 15	about 26% of the flowers became fruits
Fruit maturity and fall	25 – 38	about 21% of the fruits were matured
Total (range in days)	71 – 86	

Table 4. List of bats present in the forest habitat of SEPPSF

No.	Species	Vernacular name
1	<i>Balionycteris maculata</i>	Spotted-winged fruit bat
2	<i>Chironax melanocephalus</i>	Black-capped fruit bat
3	<i>Cynopterus sphinx</i> *	Short-nosed fruit bat
4	<i>Megaerops ecaudatus</i> *	Tailless fruit bat
5	<i>Penthetor lucasi</i> *	Dusky fruit bat
6	<i>Rhinolophus sedulus</i>	Lesser woolly horseshoe bat
7	<i>Rhinolophus trifolius</i>	Trefoil horseshoe bat

Note: * identified as possible seed dispersal agent for *G. Bancanus*.

Source: Lim (2007).

Forest Management in Malaysia

The Selective Management System (SMS) practices in Malaysia stipulates that harvest quotas be set annually (annual coupe). This quota is determined for every five years by the National Forestry Council which is chaired by the Deputy Prime Minister. The allocation of the annual felling coupe for the PRF is based on forest inventory data, net area of production forest, and prescribed silvicultural management practices. For the period 2006–2010, the annual coupes for the PRFs in Peninsular Malaysia, Sabah and Sarawak, including all dryland and wetland forest types, have been set at

36,940 ha, 60,000 ha and 170,000 ha, respectively, which are about 1.2%, 2.0% and 2.8% of their respective production forest areas. Annual coupe is calculated based on harvestable production area; the annual volume to be removed should be less than or equal to mean annual increment.

In Malaysia, the cutting cycle under SMS (otherwise known as forest harvesting rotation) is approximately 30 years with an expected net economic outturn of 40-50 m³ ha⁻¹. Growth rates, residual stand, and the required final stand determine the length of the cutting cycle. Higher growth rates and residual stand content are expected to lead to shorter cutting cycles and higher annual coupes (Thang 2002). SMS adopts a selective cutting approach based on minimum diameter limit. Different minimum cutting limits are applied for different timber groups. For example, *Neobalanocarpus heimii* (Dipterocarpaceae, chengal) has a cutting limit of 60 cm dbh, other dipterocarps species are harvestable at 50 cm dbh, while non-dipterocarps are cut at 45 cm dbh. The State Forestry Department is required to prepare and implement a 10-year Forest Management Plan, a 5-year Forest Development Plan and an Annual Forest Operation Plan. These plans provide guidelines for the management, conservation and sustainable development of forest resources in the State and Districts.

Forest Management in Peat swamp forests

In terms of forest management of PSF, the present cutting limits in Pekan FR, Pahang are set as 50 cm dbh for *G. bancanus* and 55 cm dbh for other species. The cutting cycle is set to be at 55 years. Meanwhile, cutting limits for trees of PSF in Selangor is set at minimum of 45 cm and 50 cm for non-dipterocarps and dipterocarps species, respectively (Saharudin 2004). Therefore, actual cutting limits are varies depends on their timber stocking that obtains from Pre-felling inventory conducted before the felling activity. The cutting cycle in PSF of Selangor is also set at 55 years. In Terengganu and Johore, no commercial activities are reported due to small size of PSF areas in these particular states.

PSFs in Sarawak are being managed with a modified uniform silvicultural system (Chai 1997). Mixed swamp forests (MSF) in Sarawak have been logged since the 1950s due to their accessibility and occurrence of highly valuable *G. bancanus* stands, especially those situated at the outer rims of the dome-like structured PSFs. From 1970 to 1984, approximately 8,000 ha of MSF have been logged annually (Chai 1997). The PSF in Sarawak adopts a cutting cycle of 40 to 60 years depending on factors such as species composition and expected growth rate with a minimum cutting diameter fixed at 40 cm (Sia 2005). As a note, all PSFs in Sabah are classified as totally protected forests (Class I) that only use for conservation purpose.

Case study on Optimum Harvesting of Peat Swamp Forest in Pekan Forest Reserve, Pahang

FRIM was allocated about RM790,000 (~USD226,000) by the Malaysian government under Levy Fund to determine the harvesting regime for PSF in Peninsular Malaysia. In these studies, Compartment 77 in Pekan FR has been selected as the study site. The area is productive rich forest of ramin-bintangor subtype located in northeast of

the forest reserve (Blackett & Wollesen 2005). The ramin-bintangor subtype is representing about 20% (~10,000 ha) of the whole Pekan FR. An area of 100 ha in the Compartment 77 was allocated for this study to present actual harvesting practices in the ground. The study areas were divided into four blocks of 25 ha, which used in testing of different cutting options developed by the project. Four set of cutting regimes had been developed based on primary and secondary data collected (Table 5). The cutting regimes were prepared by taking into account species dominance in the area, volume of timber to be taken out and number of residual trees and main species to be retained as future crops.

Table 5. Selected cutting limits for species group in each harvesting block

Block	Cutting limit	Description
1	50 – 45 – 40	low cutting limit
2	55 – 45 – 40	medium cutting limit
3	60 – 50 – 45	medium cutting limit
4	65 – 55 – 50	high cutting limit

Note: Cutting limits for species group: 1 – 2 – 3

1 = *G. bancanus* and dipterocarps only,

2 = *Callophyllum* species only,

3 = other species.

The cutting regimes were tested by using Rimbaka Timber Harvester or simply called as Rimbaka. The machine is one type of RIL method developed by local logging company. After the harvesting, post-harvest assessments was conducted to determine the impacts of each cutting options on the forest stands. In the assessments, actual damage of the residual trees of the different cutting regimes due to the harvesting operations were assessed. Besides the physical and ecological assessments, an financial assessment was also conducted. Both assessments were used to determine final harvesting regime that most suitable for the PSF.

Results of damage assessments that conducted after the completion of harvesting operation are shown in Table 6. There were total of 547, 547, 643 and 659 trees of ≥ 15 cm dbh recorded in Blocks 1, 2, 3 and 4, respectively. Total number of trees survived were 467 (85.4%), 468 (85.6%), 538 (83.7%) and 582 (88.3%) for Blocks 1, 2, 3 and 4, respectively. Meanwhile, total number of trees died for all species for Blocks 1, 2, 3 and 4 were 80 (14.6%), 79 (14.4%), 105 (16.3%), respectively. The total number of survived trees of all species that had no damage at all (intact) were 318 (58.1%), 315 (57.6%), 427 (66.4%) and 460 (69.8%) in the respective blocks. The number of survived trees that suffered some damage were 149 (27.2%), 153 (28.0%), 111 (17.3%) and 122 (18.5%) for Blocks 1, 2, 3 and 4, respectively.

Table 6. Results of damage assessment (dbh \geq 15 cm)

Parameter	Block 1	Block 2	Block 3	Block 4
Total number of trees surveyed	547	547	643	659
Total number of trees died	80	79	105	77
Percentage (%)	14.6	14.4	16.3	11.7
Total number of trees survived	467	468	538	582
Percentage (%)	85.4	85.6	83.7	88.3
Total number of trees survived with damages	149	153	111	122
Percentage (%)	27.2	28.0	17.3	18.5
Total number of heavy damage trees	66	63	72	70
Percentage (%)	12.1	11.5	11.2	10.6
Total number of medium damage trees	58	43	21	22
Percentage (%)	10.6	7.9	3.3	3.3
Total number of light damage trees	25	47	18	30
Percentage (%)	4.6	8.6	2.8	4.6
Total number of undamaged trees (intact)	318	315	427	460
Percentage (%)	58.1	57.6	66.4	69.8

It was found felling activity as the main reason of died trees in the harvesting operation as shown in Table 7. Therefore, it can be concluded that the RIL is giving minimum impact to the residuals stands and the timber extraction is only contributing to small portion of trees that died during the harvesting operation.

Table 7. Causes of trees died of harvesting operation on different blocks (dbh \geq 15 cm)

Cause	Block 1	Block 2	Block 3	Block 4
Felling	71 (88.8%)	65 (82.3%)	70 (66.7%)	68 (88.3%)
Extraction	9 (11.2%)	14 (17.7%)	35 (33.3%)	9 (11.7%)
Total	80 (100.0%)	79 (100.0%)	105 (100.0%)	77 (100.0%)

In term of timber production, total timber production in study areas of 100 ha was 8,821.58 m³. Apparently as assumed due to lower cutting regime, Block 1 had highest timber production, followed by Block 2, 3 and 4 with 110.53, 106.14, 85.02 and 51.18m³, respectively. In this study, volume mean annual increment (MAI) and optimum cutting cycle are projected. It shows that the volume MAI for each block is

not far different, in the range of $1.75 - 1.84 \text{ m}^3\text{ha}^{-1} \text{ yr}^{-1}$. While, optimum cutting cycle is varies in the range of 30 – 45 years depending on the blocks.

Meanwhile, total cost of timber harvesting in the study site (100 ha) was $22,476.70 \text{ ha}^{-1}$. Cost of felling consuming bigger portion with 51.42% followed by administration and pre-felling costs with 46.44 and 2.66%, respectively. Based on the financial analysis that used 10% interest rate for 35 years cutting cycle, showed that the values of net present value (NPV) were positive for timber harvesting in Block 1 ($\text{RM}230,095.90 \text{ ha}^{-1}$), Block 2 ($\text{RM}212,351.64 \text{ ha}^{-1}$) and Block 3 ($\text{RM}132,157.20 \text{ ha}^{-1}$), but negative value in Block 4 ($-\text{RM}5,622.43 \text{ ha}^{-1}$). It shows that timber harvesting is viable in Block 1, 2 and 3, while not viable in Block 4. As outputs of this study, it is suggested to use cutting limits of Block 3 [60 (ramin & dipterocarps) – 50 (bintangor) – 45 (others)] as minimum cutting limit in the ramin-bintangor subtype at Pekan FR with cutting cycle of 35 - 40 years.

Based on this study, RIL has shown considerably low damage impacts on the residual stands. It was found that log extraction, the main part of the RIL method, only contributed a small portion to the overall damage or tree mortality as compared with the felling operation. It is clear that the implementation of the RIL method in PSF helps to minimize damage to the residual stands. It showed that the RIL method had successfully produced relatively low damage and mortality of the residual stands and therefore should be continued and encourages to be used in harvesting of the PSF areas.

Conclusion and Recommendation

In general ecological information for *G. bancanus* are relatively adequate. In general, efforts have been made to ensure management of this species is taking into account its ecological characteristic. The management of habitat of this species particularly on the timber harvesting has got special attention in order to sustain their production. Nonetheless, continuous research and improve management practices of the species and its habitat are still necessary to ensure its sustainability for economic and ecological purposes. Furthermore the species are listed in Appendix II of CITES, in which their timber trading is based on annual quota. However, it was observed that the ecological information of other *Gonystylus* spp. are still lacking and therefore critical to be given more attention. If necessary, special management practices of the species might needed to increase their production that possibly could further reduce pressure on dependency to the timbers of *G. bancanus*.

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Annex 8. Coordination and Cooperation for the Effective Implementation of the Inclusion of Ramin in Appendix II of CITES by *Dr. Tonny Soehartono*

**COORDINATION AND COOPERATION
FOR THE EFFECTIVE
IMPLEMENTATION OF THE INCLUSION
OF RAMIN IN APPENDIX II OF CITES**

Dr. Tonny R. Soehartono
Director of Biodiversity conservation
Ministry of Forestry
CITES MA-INDONESIA

HISTORICAL RAMIN INTO CITES

LISTING INTO CITES APPENDIX III

- Ramin, *Gonystylus bancanus* is a species that belongs to family *Thymelaceae* (30 species).
- In the late 90's there was questions of sustainability of harvest on Ramin in Indonesia due to rampant illegal logging of Ramin (ignited in Tanjung Putting National Park).
- Indonesia submitted the species into CITES App III and take into force on 6 August 2001.
- Listed with Annotation 1: logs, sawn and finished products are included.

QUESTION OF EFFECTIVITY OF LISTING IN CITES APP. III

- It did not stop the practice of illegal logging and its associate trade
- It appeared that the listing did not work well to improve the global trade as other range state did not provide NDF for the harvest of the species
- The national workshop recommended to up list the species into CITES App II.

LISTING INTO CITES APPENDIX II

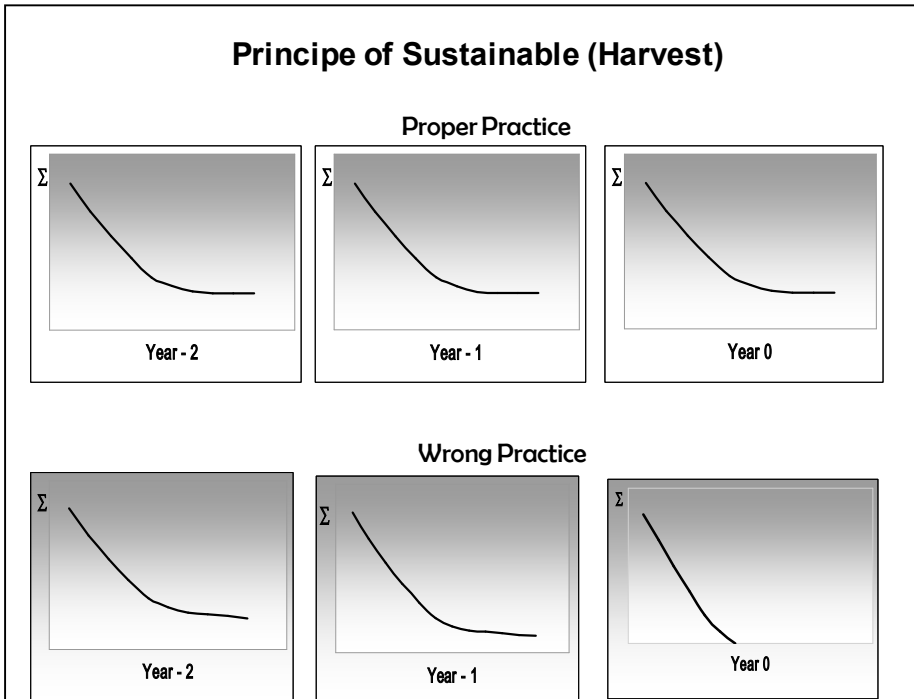
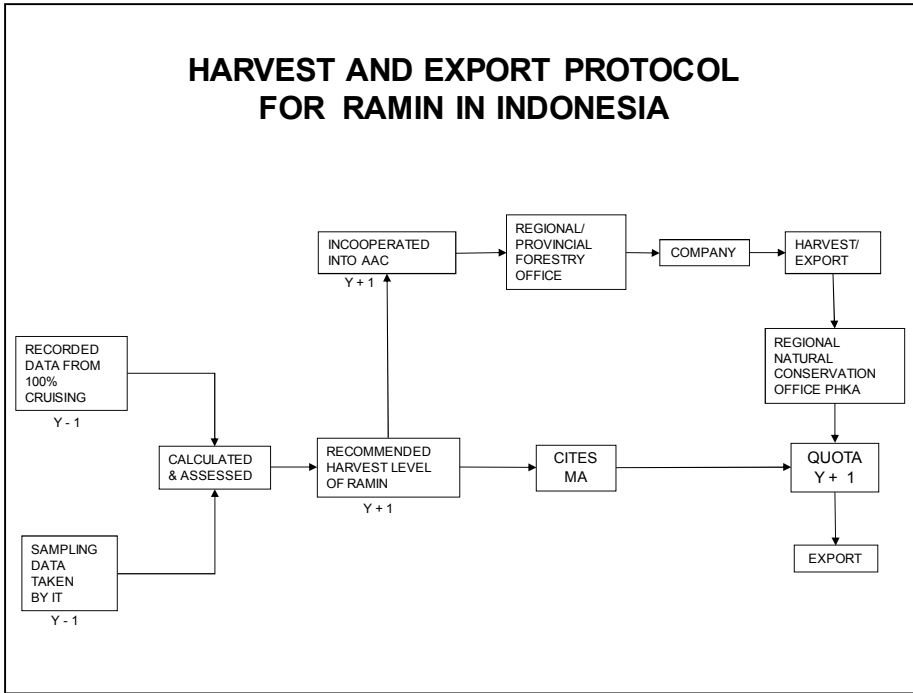
- Indonesia submitted the up listing of Ramin into CITES App. II at COP CITES 13 Oct 2004 and effective by 15 January 2005
- Export permit issued by CITES Mgt Authority (MA) Indonesia
- Harvest quota recommended by issues by CITES Scientific Authority (SA) Indonesia
- Harvest permit issued by Regional Forest Office
- Export quota sets by CITES MA Indonesia

Policy to limit the Concessionaire

- In 2001 the MoF has required company qualified to harvest Ramin to SFM certificate
- PT. Diamond Raya Timber (DRT) is the only concessionaire with SFM granted by FSC

B. HARVEST QUOTA

- The Integrated team (IT) of Ramin Harvest Quota (RHQ) consists of SA, IPB, Local Univ and NGO and PT Diamond Raya Timber (DRT) was set up in 2001
- The Term of Reference of IT are:
 - ✓ to provide recommendation on annual harvest level for Ramin in the area of PT DRT
 - ✓ to set recommendation of harvest mechanism and post harvest monitoring of the species in the area of PT DRT



Continue.....

- The IT annually collects data and information in PT DRT area on August and submitted to Indonesia Institute of Sciences (LIPI) as SA in September.
- CITES SA in October hosts national workshop of annual harvest with relevant stakeholders and CITES MA
- Final recommendation of annual harvest is submitted in November to CITES MA
- The CITES MA issues the annual quota in December

Continue.....

- Harvest operation is monitored by Provincial Forestry Office (Dinas Kehutanan)
- Export inspection is monitored and inspected by Regional Office of PHKA for Riau Province

Export Licence

- Companies that hold export license are PT. Uniseraya (2005) and PT. Panca Eka Bina Plywood Industry (2008).
- Since 2005, export to some countries such as Netherlands, Taiwan, Japan.

Quota and Actual Export of Ramin

Year	Quotas (CBM)	Exported (CBM)	Exporter	Source of Ramin
2004	8800	3066	PT. Uniseraya	PT. DRT
2005	8880	3038,7	PT. Uniseraya	PT. DRT
2006	8880	2229,6	PT. Uniseraya	PT. DRT
2007	5909	1142,3	PT. Uniseraya	PT. DRT
2008	5909	999,7	PT. Uniseraya	PT. DRT
2009*	8000	455	PT. Uniseraya	PT. DRT

*) until June 2009

COORDINATION AND COOPERATION IN INTERNATIONAL LEVEL

TRI NATIONAL TASK FORCE (2005)

- Year 2006, there are 3 cases of illegal Ramin trade
- Year 2007, there are no cases of illegal Ramin trade

Indonesia- ASEAN-WEN Coordination (2007)

CITES MA, Custom, Attorney Office, Police and Interpol

ITTO-CITES Project

- Improving inventory Design to Estimate Growing stock of Ramin (*Gonystylus bancanus*) in Indonesia
- Assesing Silvicultural System on Ramin :
Review on the Current Practice and
Revitalization of existing Permanent Sample Plots.

- Thank you
- Credit to : ITTO, CITES and Organizing committee of the workshop

Annex 9. Term of Reference (Guideline) for Working Groups (WGs) in the Breakout Discussion

General Guideline

The discussion within the WG is based on a participatory approach with free and non-binding exchanges of views of all members, some background information and documents will be made available (as below), the resource persons are invited to join the WG discussion.

It is intended to develop consideration of elements for strategic and action planning on a stepwise approach starting from reviews of available information, followed by an exchange of experiences among participants, on some analyses of issues that are identified as being of importance for the topics of the WG, on contribution of group “resource person” gives as input in view of enhancing the discussion and of reaching conclusion on elements that appear to be of relevance for strategic and action planning.

It is not intended that the WG would draft a specific strategic and action planning or a project, however, the WG may conclude /agree on certain issues that need to be explored or covered in a study or could be subject to project approach at national and regional level.

Three Working Groups below are formed based on the thematic issues raised from the previous ITTO Expert Meeting on the effective implementation of the inclusion of ramin into Appendix II of CITES:

Working Groups

Working Group I : Ecological and management status of ramin (*Gonystylus* spp.)

Working Group II : Review of market and international trade in ramin.

Working Group III : Capacity building for meeting the requirement of the inclusion of ramin in Appendix II of CITES and the coordination and cooperation for its effective implementation

Composition of WG

The composition of the three WG, along with group facilitators, is presented on the next page. Group membership has been diversified in order to have a good representation of countries, affiliation and perspective in each group where possible. This should promote the exchange and cross fertilization of experience, ideas and lessons.

Each group will have a designated rapporteur-to work with facilitator. A representative of the group will report-back to plenary, 20 minutes per group on the outcomes generated. Plus 10 minute for discussion for each group.

WG 1	WG 2	WG 3
1.	1.	1.
2.	2.	2.
3.	3.	3.
...

Anyone who wish to change to another group, find replacement to take your place and please report to the OC.

Task of WG

- to assess basic information from the presentation and discussion,
- to discuss relevant issues and elements which are relevant for strategic and action planning and roadmap approaches at working group level,
- to undertake deliberation and technical discussion at working group level (to freely address, discuss, contribute experiences, share background information and strategic aspect,
- to draft elements and aspects which are relevant for the preparation of strategic and action planning toward the sustainable management and conservation of ramin,
- to deliver conclusions and recommendation of the working group as results of the working group in the plenary session.

Stepwise approaches

- Review synthesis information from the presentation (country reports, progress report of the project etc),
- Identify overarching issues for the topic of WG and check whether or which issues appear to be more or less country related/country specific,
- Assess problems and opportunities for action, identify possible risk and conflict, controversial position, missing information, lack of legal, technical frameworks,
- Consider the "SWOT" approach (if possible) and other instruments as a mean of assessment,
- Take stock of findings from the discussion (bullet points listing),
- Try to draft an output (outcome) of a few pages (bullet point presentation of the WG deliberation that could serve as a basis for brief presentation by the WG to the final meeting of WG for subsequent discussion within the WG and in view of concluding the deliberation of WG.

Conclusions and Recommendations

- The objective of Conclusions and Recommendations is to encourage and facilitate approaches for the strategic and action planning and of operational steps of range states-member countries to promote sustainable management and conservation of ramin.

Sources of Materials/informations

- Presentation materials,
- Paper presented in the previous session,
- Conclusions and recommendations of the previous ITTO Expert meeting (provided),
- Issues raised during the presentation and open forum.

Annex 10. Capacity Building for Meeting the Requirements of the Inclusion of Ramin in Appendix II of CITES by *Singapore CITES – MA*

Capacity Building for Meeting the Requirements of the Inclusion of Ramin in Appendix II of CITES



Agri-Food & Veterinary
Authority of Singapore

Meetings/Workshops

- Singapore was represented at the following meetings/workshops:-
 - Year 2004
 - Ramin Workshop
 - 1st Meeting of the Tri-National Taskforce on Trade in Ramin.
 - Year 2005
 - Wood Identification Course

Meetings/Workshops

- Singapore was represented at the following meetings/workshops:-
 - Year 2006
 - 2nd Meeting of the Tri-National Taskforce on Trade in Ramin.
 - Year 2007
 - 3rd Meeting of the Tri-National Taskforce on Trade in Ramin
 - Ramin Identification Workshop.

Meetings/Workshops (2004)

- Ramin workshop
 - 15-16 April 2004 in Kuala Lumpur, Malaysia;
 - Organised by TRAFFIC Southeast Asia;
 - Addressed the illegal ramin trade in the region and discussed solutions to counter the illicit trade.

Meetings/Workshops (2004)

- **1st Meeting of the Tri-National Taskforce on Trade in Ramin**
 - 7-8 September 2004 in KL, Malaysia;
 - Indonesia, Malaysia and Singapore;
 - Follow-up to the Ramin Workshop in April 2004;
 - Proposed enforcement measures to curb illicit trade in ramin.

Meetings/Workshops (2005)

- **Wood Identification Course**
 - 3-4 March 2005, Singapore
 - Organised by AVA and conducted by TRAFFIC and Malaysian Timber Industry Board (MTIB);
 - Participants from Immigration and Checkpoints Authority (ICA) and AVA;
 - Focused on characteristics and morphology of different kinds of wood, including ramin and its look-alike species;
 - Practical session on Identification of wood using hand lens and penknife.

Meetings/Workshops (2006)

- 2nd Meeting of the Tri-National Taskforce on Trade in Ramin
 - 12-13 April 2006 in Jakarta, Indonesia;
 - Establishment of focal points for each of the three countries (ID, MY and SG);
 - Action Plan for Task Force.

Meetings/Workshops (2007)

- 3rd Meeting of the Tri-National Taskforce on Trade in Ramin
 - 7-8 May 2007, Singapore;
 - Discussed on development of closer cooperation, communication and understanding on the trade in ramin between ID, MY and SG;
 - Exchanging of information on ramin transshipment.

Meetings/Workshops (2007)

- Ramin Identification Workshop
 - 30 Oct – 2 Nov 2007, Singapore;
 - Initiated by US Forest Service and supported by the US Agency for International Development;
 - Conducted by a botanist from US Department of Agriculture, and 2 co-trainers from MTIB;
 - Participants from CITES MA and forestry officers of China, Indonesia, Malaysia and Singapore.
 - Quiz and practical exam conducted whereby participants were shown 52 samples of wood to ascertain if they were ramin/non-ramin wood.



Ramin Identification Workshop 30 Oct – 2 Nov 2007, Singapore



Agri-Food & Veterinary
Authority of Singapore

Annex 11. Malaysian view on the formation of regional priority and action plan.

Statement from the Malaysian Participants on the Regional Action Plan for *Gonystylus* spp. (Ramin)

Thank you Mr. Chair,

We wish to extend our thanks and appreciation to the Government of Indonesia and ITTO for organizing this workshop. We believed such effort is important in ensuring international trade in CITES-listed timber species, and in this context, *Gonystylus* spp. (ramin) is consistent with their sustainable management and conservation

With regard to the proposal on the Regional Action Plan for *Gonystylus* spp. (Ramin), it is our view that an action plan at the regional level is not necessary at this juncture. For your information, the volume of ramin exported from Peninsular Malaysia has greatly decreased compared to the past years. In 2008, a total of 6,124 cubic meters of ramin sawn timber, parts and derivatives were exported from the allocated quota of 20,000 cubic meters. The decrease in ramin export is contributed by the fact that some country like Australia is banning the import of ramin into their country. Furthermore, there are no cases of illicit trade involving ramin detected in 2008, while only one cases was detected in 2007. This scenario shows that at the moment, the trade in ramin is very much under control.

We also wish to thank Ms Milena of the CITES Secretariat for the very informative briefing on the regional action plan for mahogany. We noted that much success has been achieved in ensuring the sustainability of mahogany through the action plan. However, it is also important to note while there are many range states for Mahogany like Peru, Bolivia, Brazil, Guatemala etc, there are only 2 range states for ramin. We are of the view that setting up a regional action plan involving only 2 range states is time consuming when at present, a mechanism already existed for us to discuss matters related to ramin which is the Tri-National Task Force for Trade in Ramin. We can also tap on our existing cooperation through the ASEAN Expert Group on CITES (AEG-CITES) to deliberate on this issue

Thank you.



Published by

Indonesia's Work Programme for 2008 ITTO CITES Project
Center for Forest and Nature Conservation Research and Development
Forestry Research and Development Agency, Ministry of Forestry, Indonesia
Jl. Gunung Batu No.5 Bogor-Indonesia

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ISBN 978-602-95842-2-6



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