THE INCLUSION OF RAMIN INTO CITES APPENDIX:

REVIEW AND MEASURES TO IMPROVE ITS IMPLEMENTATION



Tajudin Edy Komar



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Technical Report No. 02 of Activities 2.1.1 and 2.1.2, ITTO PROJECT PD 426/06 Rev. 1 (F)

THE PREVENTION OF FURTHER LOSS AND THE PROMOTION OF REHABILITATION AND PLANTATION OF GONYSTYLUS SPP (RAMIN) IN SUMATRA AND KALIMANTAN

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FOREWORD

Ramin (*G bancanus* Kurz) has been listed into CITES Appendix since 2001 following the huge illegal timbers of ramin into International trade and rapid decrease in its natural population in Sumatra and Kalimantan. Its inclusion into CITES, however, has yet given significant contribution to control the trade of illegal ramin timbers and therefore the conservation of the species. This poor implementation is due to various factors, such as poor human resources and institutional capacity, lack of knowledge and skill, law enforcement etc. In order to improve it, the most common barriers/obstacles in its implementation should be eliminated and suitable measures (such as training and or extension) to improve the implementation should be identified. There are still many other factors influencing the effectiveness of CITES implementation other than those listed and described in this document. Therefore this document should be improved from time to time in accordance with the latest development.

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Project Coordinator

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Author

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ABBREVIATIONS

AAC Annual Allowable Cut

AWB Bill of Landing or Airway Bill BAP Examination Stock Report

BKSDA Natural Resources Conservation Institute, Indonesia Provincial Offices of the

CITES Management Authority

BKT PH Bagan Kerja Tahunan Pengusahaan Hutan (Annual Working Charts of Forest

Concessions)

BPS Badan Pusat Statistik, National Statistics Bureau of Indonesia

BRIK Forest Industry Revitalization Board

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

CoC Chain of Custody

CoP Conference of the Parties

CRAT CITES Ramin Assessment Team

DRT Diamond Raya Timber

EPIK Enlisted Exporter of Forestry Industrial Product

EU European Union FIFO First In First Out

FLEGT Forest Law Enforcement Governance and Trade

FMU Forest Management Unit

FORDA Forestry Research and Development Agency

FSC Forest Stewardship Council

FTZ Free Trade Zone

FWI Forest Watch Indonesia

HPH Hak Pengusahaan Hutan (Holder of Forest Concession)

HPHH Hak Pemungutan Hasil Hutan (Rights to Collect Forest Products)

HS Harmonized System (Harmonized Commodity Description and Coding System -

used for classification of goods in international trade)

IBSAP Indonesian Biodiversity Startegy and Action Plan

IMA Indonesian Management Authority

IPK Ijin Pemanfaatan Kayu (Licenses to Utilize Wood)

IPPK Ijin Pemungutan dan Pemanfaatan kayu (Licenses to Collect and Utilize Wood

ITTO International Tropical Timber Organization

IUCN International Union for Conservation of Nature and Natural Resources (The World

Conservation Union)

Jikalari Jaringan Kerja Penyelamat Hutan Riau (Local NGO in Riau)
Kepmenhut Keputusan Menteri Kehutanan (Decree of Minister of Forestry)
Lembaga Ekolabel Indonesia (Indonesian Ecolabelling Institute)

LIPI Lembaga Ilmu Pengetahuan Indonesia (Indonesian Institute of Science)

MA Management Authority
MLH Mixed Light Hardwood
MoF Ministry of Forestry
Mol Ministry of Industry
MoT Ministry of Trade
NDF Non-Detriment Finding

NGO Non-Governmental Organization

NPWP Nomor Pokok Wajib Pajak (Indonesian Tax)

Permenhut Peraturan Menteri Kehutanan (Regulation of Minister of Forestry)

PHKA Directorate General of Forest Protection and Nature Conservation, Ministry of

Forestry, Indonesia

PP Peraturan Pemerintah (Government Regulation)

PSF Peat Swamp Forest
PSP Permanent Sample Plot

RKT PH Rencana Karya Tahunan Pengusahaan Hutan (Annual Working Plant for Forest

Concession)

RWE Roundwood Equivalent

SA Scientific Authority

SATS-LN Surat Angkut Tumbuhan dan Satwa Liar Luar Negeri (Documents on Transport of

Wild Plants and Animals to Other Countries)

SATS-DN Surat Angkut Tumbuhan dan Satwa Liar Dalam Negeri (Documents on Transport

of Wild Plants and Animals for Domestic)

SFM Sustainable Forest Management

SKSHH Surat Keterangan Sahnya Hasil Hutan (Certificate of Validity of Forest products)

SOP Standard Operational Procedure

SPHAL Sertifikat Pengelolaan Hutan Alam Lestari (Certificate on Sustainable Natural

Forest Management)

Spp Species

STBS Surat Tanda Bukti Setor (

TPTI Tebang Pilih dan Tanam Indonesia (Indonesian Selective Cutting and Replanting)

TRAFFIC-SEA Trade Records Analysis of Flora and Fauna in Commerce - Southeast Asia

TUPOKSI Tugas Pokok dan Fungsi (Main duties and roles)

UU Undang-Undang (Government Law)
VPA EU Voluntary Partnership Agreement

VU Vulnerable

WCMC World Conservation Monitoring Center

WFF Wild Flora and Fauna WWF World Wildlife Fund

I. INTRODUCTION

1.1. Background

Ramin (*Gonystylus spp*) is one of the most valuable timber growing in Indonesia. Species within this genus distribute widely in Indonesian major islands, whereas *Gonystylus bancanus*, a prominent and commercially valuable timber species, grows naturally in tropical peat swamp forests in Sumatra and Kalimantan. According to current data, the total peat swamp forests area in Sumatra and Kalimantan is approximately over 18 millions ha (Najiyati, Muslihat and Suryadiputra, 2005). The total area could be more, if include other peat swamp forest area from other islands, which have not been fully explored to date. Total peat swamp forests for ramin habitat was approximately over 13 millions ha (Pusat Rencana Kehutanan-Pusrenhut 1983), distributes in the provinces of Riau, Jambi, South Sumatra, West Kalimantan, Central Kalimantan and small area of South Kalimantan (Figure 1). The estimated area of peat swamp forests in Indonesia may differ from one to other sources depending on the method used to obtain them.

The population and growing stock of ramin have drastically decreased since last several years, from the earlier estimate of stock of over 14 million cu m in 1983 (Bismark et al 2006) or approximately 11 million cu m in 1995/1996 and nearly 6 million cu m in 2001 (Directorate of Forestry Planning, 2001, Bismark et al 2006). This sharp decrease is primarily due to over exploitation, the unsustainable method of harvesting, habitat conversion and other natural disturbance. This has caused potential export of ramin also decreases. In response to this situation, in 2001 Indonesia imposed moratorium policy on ramin, meaning no logging activity is allowed throughout the country. Several months later one Forest Concession Company, PT Diamond Raya Timber located in Riau is granted permit for harvesting ramin. The company is allowed to harvest after being granted a certificate of SFM by Indonesian Eco-labeling Institute (LEI), In 2001, Government of Indonesia listed ramin into Appendix III of Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES) and then up listed into appendix II in 2004. After listing into CITES Appendix, the International trade of ramin is regulated in accordance with CITES. International trade of CITES listed species requires condition that (1) the species is harvested not in contravention of the laws of the State listing the species for the protection of flora and fauna and (2) an export permit issued by CITES management Authority.

Since the inclusion of ramin into CITES Appendix III and Appendix II, there have been some efforts to evaluate its implementation through studies, workshops and other review. This paper is intended to complement the previous reviews, with specific to its implementation, the effectiveness, the barriers and also possible measures to improve it.

As at the present time, CITES implementation in Indonesia involves many stakeholders.

Government has appointed Ministry of Forestry (DG of Forest Protection and Nature Conservation-PHKA) as Management Authority and National Institute of Science (LIPI) as Scientific Authority of CITES. In case of International Trade, Agency of Forest Industry Revitalization (BRIK), Office of Custom and excise, Quarantine, Police Department, Ministry of Trade and Industry and other related institutions involve directly and or indirectly, in handling and processing the export documents, permit, monitoring, enforcement, etc. Several other institutions such as Provincial and District Forest Services as well as Attorney and Court involve in the implementation and enforcement of laws and regulation. The documents accompany the timber products since in the stage of harvesting/logging until the shipment of products to overseas destination.

Based on our current observation, CITES implementation on ramin in Indonesia still faces some barriers and therefore for effective implementation it needs some improvement. The barriers are related to the human resources capacity (awareness, knowledge and skill, number of skilled personnel, existing rules and regulation (insufficient manual and guidelines, conflicting between Central and Provincial), resources management (scientific data deficiency, monitoring the compliance with regulation), coordination among involved institutions (commitment and participation), law enforcement and monitoring.

Measures to improve the implementation range from the improvement of institutional and human resource capacities, procedures, rules, regulation, manual and guidelines including (SOP), resource management, law enforcement and monitoring through training workshop, consultative meeting, extension, education, improve coordination, etc.

1.2. Objectives

The objectives of this activity are:

- 1.2.1. to review the implementation of CITES on ramin
- 1.2.2. to identify the barrier in the implementation of CITES on ramin
- 1.2.3. to identify measure to improve its implementation, especially on institutional and human resource capacity through training, extensions, workshop etc.

1.3. Methodology

Data and necessary information were collected from various sources through the following methods:

a. Literature search

Interviews
 Interviews to key authorities and experts within Ministry of Forestry (CITES Management Authority), LIPI (Scientific Authority), Custom Office, BKSDA, Provincial and District Forestry

Service, and Researchers.

c. National Workshop and Consultation Meeting Small group discussions were carried out to share information and cross check on the relevant issues, and several National workshops have been carried out in Bogor on September 2005 and February 2006, and more specific on CITES in Jakarta, 24 July 2007.

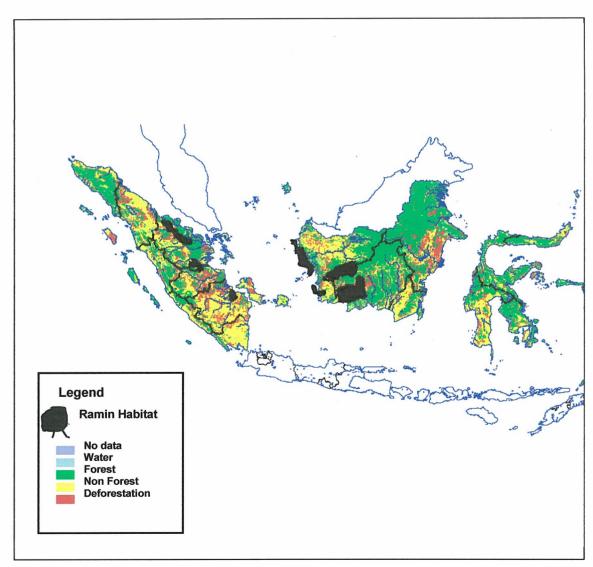


Figure 1. Ramin Distribution in Sumatra and Kalimantan

II. OVERVIEW ON THE INCLUSION OF RAMIN INTO CITES APPENDIX

2.1. Defining The Species

Ramin is a trade name for Gonystylus spp from family Thymeleaceae. Geographically, Gonystylus distributes naturally in Malesian area, Salomon islands, Nicobar and Fiji (Komar, 2005). In Indonesia, species within the genus distribute and grow naturally in tropical rainforest in a wide range of elevations in Sumatra and Kalimantan. It is about ten tree species within the genus are recorded grow naturally in those two islands. This includes G. bancanus, a species which grows naturally in tropical peat swamp forests (Komar, 2005). This genus consists of up to 31 species (Komar, 2005) and even more (Soerianegara and Lemmens 1993). Only some species which have been relatively sufficiently explored, such as G. affinis, G. bancanus, G, forbesii, G. macrophyllus, G.maingayi and G.velutinus. However, the most potential species of Gonystylus, which has been commercially traded, is Gonystylus bancanus. Timbers of other Gonystylus may have been Internationally traded in mixture with other light hardwood as Mixed Light Hardwood-MLH (Soehartono and Mardiastuti, 2002, Lim, Soehartono and Keongl 2004). The wood of G. bancanus ranged from lightweight to medium weight hardwood. . The number of species and the scientific names may differ between authors, such as those listed in the Checklist published by CITES secretariat and the documents prepared by the ITTO pre-project and current project. This difference is mainly due to the scientific interpretation of the genera within Thymeleaceae.

2.2. Conservation Status

Conservation status of ramin as reviewed by Lim *et al.*, (2004) as follows: "The World Conservation Monitoring Centre (Oldfield *et al.*, 1998) assessed the conservation status of 15 species of *Gonystylus*, the results of this assessment are summarized in Table 2. This assessment used the 1994 IUCN Red List Categories & Criteria (version 2.3), finding all 15 *Gonystylus spp.* evaluated to be 'Vulnerable' (VU), facing a high risk of extinction in the wild in the medium-term future. These findings have been the basis for the inclusion of the 15 species in the IUCN Red List of Threatened Species from the year 2000 onwards (Hilton-Taylor, 2000)".

IUCN Category ver. 2.3 (1994)	No. spp
NE (Not Evaluated)	16
VU A1c + 2c	10
VU A1cd + 2cd	3
VU A1cd	2

Source: Lim et.al. 2004

Notes:

A1c. Population reduction in the form of an observed, estimated, inferred or suspected reduction of at least 20% over the last 10 years or three generations, whichever is the longer, based on a decline in area of occupancy, extent of occurrence and/or quality of habitat;

A1d. Population reduction in the form of an observed, estimated, inferred or suspected reduction of at least 20% over the last 10 years or three generations, whichever is the longer, based on actual or potential levels of exploitation;

A2c. Population reduction in the form of a reduction of at least 20%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on a decline in area of occupancy, extent of occurrence and/or quality of habitat; and

A2d. Population reduction in the form of a reduction of at least 20%, projected or suspected to be met within the next ten years or three generations, whichever is the longer, based on a decline in area of occupancy, extent of occurrence and/or quality of habitat.

Twelve species met two criteria and three species met four criteria for listing as 'Vulnerable' species. In particular, the following major threats were identified:

- (i) Habitat Loss/Degradation-Extraction-Wood-Selective-logging (ongoing)¹
- (ii) Habitat Loss/Degradation-Extraction-Wood-Clear-cutting (ongoing)²

These threats might have been intensified for *G. bancanus*, whose populations might have been heavily depleted by logging activity, especially illegal logging both in natural production forests and conservation or protected areas. Peat swamp forest is the most important habitats of ramin and the source of ramin timber (Oldfield *et al.*, 1998). *G bancanus* is also threatened in parts of its range by habitat loss (Oldfield *et al.*, 1998) leading to increasingly fragmented remnant populations as occurred in many places in Sumatra and Kalimantan.

¹ IUCN Threat No. 1.3.3.2 IUCN Threats Authority File (Version 2.1) (Anon., 2003m).

² IUCN Threat No. 1.3.3.3 IUCN Threats Authority File (Version 2.1) (Anon., 2003m).

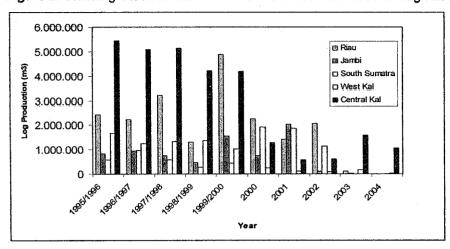
2.3. Background to List Ramin into CITES Appendix

Ramin, *Gonystylus spp*, is one of the most valuable traded tree species. Soehartono and Mardiastuti (2002) noted that ramin was once not as a valuable timber as it is now. In the beginning, the market for ramin was limited to Asia such as Japan and Taiwan. Since last 10 years, the trade has been extended to Europe and North America, making the wood becomes more popular. Exports of this species are mainly in the form of finished or semi finished products with various forms of solid and or mixed with other woods as shown in Table 2, 3 and 4.

Table 2. Ramin Parts or Derivatives and their share in global market (from Lim et al 2004).

Products containing Ramin	Market share
logs, round wood, saw-logs, pulp-logs, baulks, beams, flitches, poles, piles, large scantlings and squares	Significant
sawn timber, sawn wood, decks, cross-arms, planks, scantlings	Significant
Veneer, sheets, splices, finger-jointed planks	Significant
strips, friezes, mouldings, roundings, dowels, turnery, profiles, door lippings, skirting boards	Large
plywood, panels, wall panelling	Significant
Frames	Large
packs, cases, boxes, crates, drums, pallets, collars	Significant
casks, barrels, vats, tubs, cooperage, staves	Significant
tools, lasts, shoe trees, broomstick handles, brush-backs, T-squares, set squares, rulers, tripods, straight edges	Significant
joinery, carpentry, parquet panels, flooring, ceilings, panelling, shingles, shakes, window frames, doors, rabats, claddings, thresholds, shuttering, "builders' carpentry and joinery" (BCJ), stringers and stair treads	Significant
tableware, kitchenware, trays	Significant
marquetry, caskets, statuettes, ornaments, beads	Significant
hangers, spools, cops, bobbins, reels, splints, pegs, pins, blinds, slats, toothpicks, fans, screens	Significant
Pulp	Significant
paper, paperboard, cardboard	Significant
umbrellas, walking-sticks, handles	Significant
cases, boards, desks, cabinets and other bases for electrical equipment	Significant
futon beds, baby cots, kitchen cabinets	Significant
toys, cue-sticks & rests (for snooker/pool/billiards)	Significant
Picture frames, carvings, antique furniture	Significant

\$100 April 1



Source: Bismark et.al (2005)

Table 3. Annual Log Production of Ramin in Indonesia from 1991 through 2004

Year	Annual Production (m ³)	Remarks
1991/1992	900,000	
1993	, 	No available data
1994	665,245	
1995	655,366	
1996	601,130	
1997	489,298	Including production from 1 million ha conversion
		of peat swamp forest
1998	292,176	
1999	371,984	
2000	25,000	
2001	No production	A logging ban was imposed on Ramin
2002	8,000	Annual quota set by the CITES authority
2003	8,000	Annual quota set by the CITES authority
2004	8,800	Annual quota set by the CITES authority

Source: Adopted from Samedi 2006

Table 4. Volume (in cu m) of Indonesian CITES Exports of Ramin to European Countries According to Products in 2002

Country	Mouldings	Dowels	F-Jointed	Doors	Total
Italy	1.557	49	110	0	1.716
UK	17	413	0	0	430
Austria	194	0	20	17	231
Spain	74	144	0	0	218
Netherlands	216	0	0	0	216
Denmark	21	70	0	0	90
Germany	80	0	0	0	80
Total	2.158	675	130	17	2.980

Notes: 'F-Jointed' refers to finger-jointed timber

Source: PHKA Indonesia (2003)

Table 5. Exports of Ramin Sawn Timber and Wood Pieces from Malaysia in 2005, by Country of destination (in cu m) (Note: it is uncertain whether this represents the entire national exports from the states of Peninsular Malaysia, Sabah and Sarawak)

Country	Volume (m³)	Country	Volume (m³)
China	3789	Belgium	171
Italy	3368	South Africa	169
บรั	3193	Australia	164
Taiwan, Province of China	5206	Netherlands	152
Japan	1944	Switzerland	97
Hong Kong	1685	Republic of Korea	96
Germany	1248	Norway	80
UK	582	Sweden	65
Denmark	475	Finland	58
Malaysia	358	Spain	56
Canada	270	Greece	38
India	254	Vietnam	27
Russian Federation	243	Ireland	27
Sri Langka	188	France	18
* **		Thailand	16
		TOTAL	21,336

Source: Adopted from Keong 2006.

After heavy exploitation in the past, the growing stock of ramin has been sharply decline, as recorded by Directorate of Forestry Planning, Ministry of Forestry. For example the log production in 1991/1992 was approximately 900.000 cu m dropped to only 25.000 cu m in the year 2000 from the peat swamp forest area of approximately 6 million ha of peat swamp forests in both Sumatra and Kalimantan, compared to earlier record on the peat swamp forest area, of over 12.5 million ha. The causes of population decrease are due to over exploitation or use of unsustainable harvest method, habitat conversion to other uses which cause the great reduction of habitat, frequent forest fire and insufficient natural and artificial regeneration. Over exploitation or the use of unsustainable harvesting methods are mostly conducted by forest concession holders. This is primarily due to poor law enforcement in rules and regulation of silvicultural system and lack of supervision and control. Illegal logging has taken place since several years and almost out of control. Even none of relevant authority has successfully combated this activity. Illegal logging has given the most detrimental effect to the natural population of ramin and their habitats. This illegal logging is taking place in most areas of peat swamp forest in Indonesia and leaving small and fragmented population of ramin. This over exploitation and illegal logging are driven by high value market price of ramin timber and poor law enforcement by relevant authorities. Illegal ramin timbers are shipped or exported to nearby countries through various means and modes.

The illegal ramin timbers from Indonesia (timbers from illegal logging, see the legality standard of ramin section 2.3) might have contributed to the high volume of export of ramin from other countries to their export destination compared to the export of ramin from Indonesia. Even though, the potential sources of ramin in Indonesia is much larger than those from other countries. The

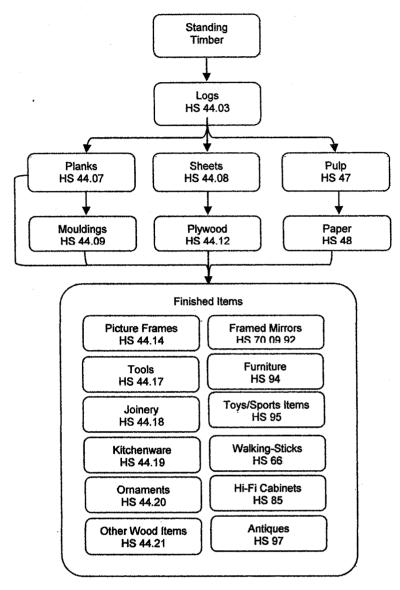
total area of peat swamp forest in Indonesia is approximately over 12.5 million ha with the approximate growing stock over 14 million cu m (Komar 2006).

Due to the above reason, Indonesian government has issued logging moratorium on ramin throughout the country in 2001. Primary purposes of this moratorium are to reduce unsustainable harvest including excessive and illegal logging, to combat illegal trade of ramin especially smuggling and to provide sufficient time and space for the habitat to recover through natural and artificial regeneration (Komar, 2005). In 2001, Indonesia also decided to list ramin into CITES Appendix as an important International instrument to control illegal trade of ramin from Indonesia. According to Soehartono and Mardiastuti (2002), the initiation to list ramin into CITES Appendix was originated from the government of the Netherlands in 1992, which was submitted to the 8th CITES COP in Kyoto, Japan. In that time, Indonesia and Malaysia fought against the proposal. arguing that ramin population in the wild was not extremely threatened. In 1994 World Conservation Monitoring Center (WCMC) under contract of the Government of Netherlands. submitted new proposal in the 9th COP and again failed to gain support from Indonesia and Malaysia as range states. Several years latter, 2001, Indonesia through the Minister of Forestry decided to ban trade of the species both domestic and International and support the proposal for the inclusion of ramin into CITES appendix. The notification was transmitted to CITES secretariat. CITES secretariat listed ramin in Appendix III in October 2001 with annotation #3 (Soehartono and Mardiastuti, 2002).

In summary, logging moratorium and listing ramin into CITES Appendix are intended to achieve the following condition :

- (1). Reducing the rate of unsustainable harvest including excessive and illegal logging
- (2). Reducing the rate of habitat degradation and lost
- (3). Reducing illegal (International) trade of ramin through CITES mechanism
- (4). Promoting the practice of sustainable management of ramin forests
- (5). Providing sufficient time for natural and artificial regeneration
- (6). Promoting the use of other species as substitution

Figure 3. An example of Production Chains for Ramin Products Together with the Generic HS Code for the Entire Product Category (NB. None of these codes are specific to Ramin)



Source: Soehartono and Mardiastuti, 2002

2.4. Legality Standard for Ramin Timber

Operational definition of legality of timber could be examined from various aspects. Keong 2003 has described and reviewed several examples of practices as listed in Table 7. There are many actions that could make the timber as illegal. According to the Table, forest practices from the occupation of land, practice of logging, transportation, trading documentation, pricing and intended misclassification of species are some common illegal conducts that causes the timber become illegal. These illegal practices are easily carried out when the control is weak and law enforcement is poor, and nearly most of the illegal practices as listed in that Table are likely to occur in Indonesia.

Legality status in accordance with CITES regulation are as follows:

- (1). The harvest is not in contravention with the existing laws and regulation
- (2). The export requires an export permit issued by CITES MA.

The practice of ramin harvest may not be in contravention with the existing laws and regulation, however, other aspects such as trading documentation and pricing may be against the legal process. This is easily conducted when the control and monitoring are poor with no law enforcement as mentioned earlier. The International trade of ramin through legal export mechanism could be controlled and monitored. However, the major shipment of ramin does not go through the legal export mechanism, instead through smuggling and or unrecognized barter trade.

According to current policy, the only forest concession company allowed to harvest ramin is PT Diamond Raya Timber of Riau. This company is granted a peat swamp forest area for approximately 90.000 ha (Mujijat and Hermansyah 2005). Ramin timbers from this concession are extracted within the allowable harvest quota (based on AAC) and the export be within the export quota. Harvest quota is determined by the MoF and provincial Forest Service when granting approval for harvesting based on the annual coupe. Export quota is determined by CITES MA based on the recommendation from CITES SA in accordance with NDF making.

Table 6. Example of types of illegal practice in the forestry sector (Adopted from Keong, 2006, Source: After Callister, 1992; FAO, 2002; and Contreras-Hermosilla, 2002)

A Illea	al occupation of forest lands	
A1 MCg	Invasion of public forested lands by rural families, communities or private corporations in order to	
	convert to agriculture or other uses	
A2.	Practice of slash and burn agriculture on invaded lands	
A3.	Landless peasants illegally occupying forested areas to force governments to grant land ownership	
	rights to them and buying land from peasants	
A4.	Obtaining logging concessions through bribes.	
B. Illeg	al logging	
B1	Logging protected species	
B2	Logging outside concession boundaries	
B3	Logging in protected areas	
B4	Logging in prohibited areas other than B3 – e.g. steep slopes, river banks, catchments areas	
B5	Removing under/over-sized trees	
B6	Extracting more than the allowable harvest	
B7	Logging without authorization	
B8	Logging when in breach of contractual obligations	
C. Illeg	al timber transport, trade and smuggling	
C1.	Export/import of timber from protected/restricted species	
C2.	Log export/import in defiance of trade ban	
C3.	Illegal export/import of restricted timber other than C1 and C2	
Ç4.	Other unauthorized movement of timber across State, national or international boundaries	
C5.	Unauthorised domestic movement of timber (usually illegally harvested timber)	
C6.	Exporting and importing specimens of tree species banned under international law, such as	
	CITES, or those traded without proper documentation across international boundaries	

D. Tran	sfer pricing and other illegal accounting practices
D1.	Declaring lower values and volumes on exports
D2.	Declaringon imports
D3.	Declaringon provision of services, including manipulating debt cash flows to transfer money to
	a subsidiary or parent company, e.g. inflating debt repayment to avoid taxes on profits
E. Unde	er-grading, under-measuring, under-valuing
E1.	Under-grading timber
E2.	Under-declaration of volume/quantity
E3.	Under-valuing export or domestic price of timber
F. Misc	lassification of species
F1.	Misclassification of species to avoid higher taxes, royalties or duties
F2.	Misclassification of species to circumvent species-specific harvest and/or trade restrictions
F3.	Classification of lesser-used species as accepted market species in order to gain market access
G. Illeg	al processing of timber
G1.	Operating without a processing licence
G2.	Ignoring environmental, social and labour laws and regulations
G3	Using illegally obtained wood in industrial processing

III. THE IMPLEMENTATION OF CITES REQUIREMENT

The inclusion of species into CITES Appendix is aimed to ensure the harvest of the species is sustainable through co-operation in international trade with other countries which are party or non-party of the convention. Any kind of illegal harvest of product, based on the operational definition, could be prevented from the International Trade. The International trade of species listed into CITES Appendix is permitted only on the presentation of the appropriate permits or certificate depending on the status of listing and country in that trade.

In general, all trade of ramin involving Parties to CITES requires permit or certificate that issued by the CITES Management Authority or Competent authorities nominated by CITES Non-Party countries (Lim *et al*, 2003). Those permits or certificated as summarized by Lim *et al* 2003 are listed below and CITES requirement by Appendix as listed in Table 7.

- (1). CITES Certificate of Origins (for exports from Parties)
- (2). CITES Export Permit (for exports from the Party who made the listing, i.e Indonesia)
- (3). CITES Re-export Certificate (for re-exports from Parties)
- (4). CITES 'Pre-convention' certificate (for Re-export from registered stockpiles that have been imported by the re-exporting Parties prior to listing date)
- (5). Non-Party Country of Origin Certificate (for imports that had been exported from Non-Parties to Parties, i.e parts and derivatives except sawn timber and logs imported by Parties from Malaysia)
- (6). Non-Party Re-export Certificate (for imports that had been re-exported from Non-party to parties, i.e parts and derivatives except sawn timber and logs imported by Parties via Malaysia).

As described by Lim *et al* 2003, that CITES mechanism takes several steps, depending on the status of the country in the trade chain. In order to implement the mechanism, the Party of the Convention needs to enact legislation or have an alternate legal basis to enable the national enforcement of the requirement of CITES. Based on this legislation, exporters of listed species would be required to apply to the competent Authority for permit or certificate. In case of Indonesia, the Management Authority is Directorate General of PHKA. These permits or certificates be forwarded to the office of Customs and Excise to check anything related to the issuance of these permits or certificate before approving export. The permit or certificate would again be examined by the Office of Custom and Excise in the importing country before import approval would be granted.

As Party of the Convention, Indonesia is required to provide several instruments in order to effectively implement CITES, not only for ramin but also for other CITES listed species and non-listed wild fauna and flora. Some of the requirements are as follows:

- (1). Improved legislation to protect and conserved wild species
- (2). Formation and designation of Management and Scientific Authority
- (3). Provision of certificate or permit for export
- (4). Provision of scientific assessment of stock and NDF
- (5). Provision of export quota
- (6). Operational Arrangement
- (7). Provision of manual and guideline for CITES implementation
- (8). Provision of Annual reporting to CITES Secretariat

Table 7. The Requirement of CITES Appendix II and III (After Keong 2006).

CITES Requirement	Appendix II	Appendix III
Parties responsible for implementation	All parties	All parties
Authorities responsible for implementation	CITES MAs and SAs	CITES MAs
CITES documents required for export/presentation on import	Export permit	Export permit (range State listing the species in Appendix III)
. ,	Re-export certificate	Certificate of Origin (Other range state)
		Re-export certificate (All countries that re-export)
Standard for document issuance	MA of State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora SA of the State of export has advised that such export will not be detrimental to the survival of that species (Article IV)	MA of the State of export is satisfied that the specimen was not obtained in contravention af the laws of that State for the protection of fauna and flora
CITES Annual Reporting requirement	All imports, exports and re-exports	All imports and exports and re- exports
Means to secure a listing	Proposal submitted as the CoP, agreed by two-thirds majority of Parties present and voting	Request by a range State sent to the CITES Secretariat (Resolution Conf.925 (Rev.CoP13) provide further guidance

3.1. National Legislation

Hierarchy of Indonesian legislations that have been issued related to CITES implementation are as follows:

- Laws (Undang-Undang-UU)
- Government Regulation (Peraturan Pemerintah-PP)
- Presidential Decree (Keputusan Presiden-Keppres)
- Ministerial Decree (Keputusan Menteri-Kepmen/SK)

- Decree by Chief of National Institute of Science (Keputusan Ketua-LIPI)

- Decision Letter or Decree by DG (Keputusan Dirjen-Sk Dirjen)

The above hierarchical order of Indonesian legislative mechanism indicates the top down hierarchy for which Laws (Undang-undang) is the highest order of legislation down to lowest order, which is more narrow coverage and limited application.

Indonesia has ratified the convention in 1978 through the Presidential Decree No. 43/1978 (Dit. PHKA 2006, Materi Rapat & Sosialisasi CITES). Following the ratification, the further instrument issued, Government Regulation (PP) No. 8/1999. In this Regulation, article 66, it is stated that 'the Department appointed to be the responsible for CITES Management Authority is the Department that is responsible to the management of whole state forestry'. In this case is Ministry of Forestry. Under the similar article, National Institute of Science (LIPI) is appointed as CITES Scientific Authority.

The National Institute of Science (LIPI), through the Decision Letter of Chief of LIPI No. 1973/2002 has appointed Center for Research in Biology is the responsible party for Scientific Authority representing LIPI. Ministry of Forestry through the Minister Decision No. 104/Kpts – II/2003, designated Directorate General of Forest Protection and Nature Conservation (PHKA) as executor for the Management Authority of CITES representing Ministry of Forestry (Table 8).

Table 8. Laws and Regulation related to the conservation of wildlife and CITES Implementation

Legislation/CITES Note	Ref. No/Date of Issue	Reference
State Law	UU No. 5/1990	Conservation of natural resources and environment
Government Regulation	PP.7/1999	Conservation of flora and fauna
Government Regulation	PP. 8/1999	Designation of CITES Authority Ratification of CITES
Presidential Decree Ministerial Decree	Keppres No.43/1978 No. 479/Kpts-II/1998	Institutions involved in conservation
Ministerial Decree	No.127/Kpts-V/2001, 11April 2001	Ramin logging moratorium
Ministerial Decree	No. 168/Kpts-IV/2001, 11June 2001	Ramin logging moratorium, harvest permit to PT. DRT
Ministerial Decree	No. 1613/Kpts-II/2001, 30 October 2001	Ramin logging moratorium, restricted utilization of product
Decree by Chief of LIPI (Nat. Institute of Science)	No. 1973/2002	Designation of Center for Biology research-LIPI as Acting SA of CITES
Ministerial Decree	No. 104/Kpts-II/2003	Designation of DG PHKA as CITES MA
Ministerial Decree	No. 447/2003	Procedure for harvest/collection and distribution of WFF
Ministerial Decree CITES Notification	No. 19/2005 No. 2001/026, 18 May 2001	The propagation of WFF Notification of listing ramin

CITES Notification	No. 2001/040,	Notification of listing ramin and
	9 July 2001	harvest permit
CITES Notification	No. 2001/053,	Notification of listing and
	10 August 2001	harvest permit

The existing national legislation for CITES implementation has accommodated at least the following aspects as extracted from Ditjen PHKA, 2006 (Materi sosialisasi CITES dan TSL):

- The appointment of one or more Management Authority and Scientific Authority
- Ban the trade of specimen which contravention to the convention
- Impose penalties to violators.
- Enable confiscation of the illegal trade or illegal ownership.

The historical development of National Legislation on the implementation of CITES, according to PHKA (2006) it could be divided into three phases as follows:

The First Phase (before 1999)

In this period only one source of legislation use for the CITES implementation, law No. 5/1990 (UU No.5/1990) which is used as primary basis for CITES implementation in Indonesia. Weakness in this legislation are:

- Only categorize protected and non protected species
- The protected species, penalties are clearly and sufficiently described but for not protected species, the penalties are not described. This is in fact that many CITES listed species are not yet under protection.

Article VIII of CITES stated that the National legislation should accommodate penalties (sanction) against all species if violation occurs. Due to this deficiency, Indonesian legislation was categorized under category III and insufficient to fully implement CITES and therefore categorized under category III meaning that the legislation is not sufficient to successfully implement the CITES. Under this condition, Indonesia is threatened to face embargo if the legislation is not being improved before 1999.

The Second Phase (1999 – 2003)

In this period, Indonesia issued Government Regulation No. 8 (PP No. 8/1999) regarding the utilization of Wild flora and fauna (WFF) and Government Regulation No. 7/1999 – conservation of WFF. Several rules needed for regulation of non protected WFF have been accommodated in this regulation including penalties (sanction). CITES requirement is generally accommodated in PP No. 8/1999. More technical arrangements have been accommodated in the Ministerial decrees or Presidential decrees. By this improvement, Indonesian legislation is up graded into category II even

though there are still some weaknesses. Under this condition, again Indonesia is still threatened to face embargo if until 31 December 2003 the national legislation are not improved.

The Improvement Phase (2003 – and beyond)

In this period there have been six laws and regulation related to the regulation on WFF as listed below:

- Law No. 5/1990 (UU No. 5/1990)- related to the conservation of natural resources and environment)
- Government regulation No. 7/1999 (PP No. 7/1999) concerns on the conservation on flora and fauna.
- Government regulation No. 8/1999 (PP No. 8/1999) regarding on the utilization of wild flora and fauna)
- Ministerial Regulation No. 447/2003 (Permenhut No. 447/2003) regulates the procedures on the harvest or collection and distribution of wild flora and fauna.
- Ministerial Regulation No. 19/2005 (Permenhut No. 19/2005) regulates the propagation (captive breeding) of the wild flora and fauna.
- Ministerial Decree No. 479/Kpts II/ 1998 (Kepmenhut No. 479/Kpts II / 98) regarding the institutions involved in conservation.

After completing all the requirement, by adding the above laws/regulation and ministerial decree, Indonesian legislation is considered sufficient to fulfill all the requirement of CITES and therefore Indonesia now is under category I (requirement to implement CITES are completed).

By this all fulfillment on the CITES requirement, the implementation of CITES to all CITES listed species are ready to be field implementation without any boundaries in the legislation level. However, harmonization in the implementation of the legislation is still essentially needed. As required, the progress of national legislation should be reported two-yearly to CITES secretariat (PHKA, 2006).

3.2. Designation of Management and Scientific Authority

As required by Convention, a Party of Convention that has listed any kind of species under Appendix II, is required to designate Management and Scientific Authority. Indonesia under the Presidential Decree No. 43/1978 has appointed relevant institutions to be the CITES Management and Scientific Authority. The responsibilities and the functions of the CITES MA and SA are

described below (as defined below by PHKA, 2006):

- Management Authority : responsible for administrative works of CITES implementation

(legislation, execution of the legislation, law enforcement, permit,

annual report, two yearly report and communication to CITES

institution).

- Scientific Authority : responsible for providing scientific basis (advice) to management

authority regarding the NDF and other scientific aspect on the

implementation and monitoring of international trade, such as

determination of harvest quota.

Management Authority is also responsible for the control in the utilization of endangered WFF as ruled in Government Regulation PP No. 8/1999. Whereas Scientific Authority provides:

- Recommendation to Management Authority in determining list, classification, harvest quota and the trade of endangered WFF.

- Monitoring trade permit and actual trade and provide recommendation to Management Authority for controlling the permit issues on wild flora and fauna (WFF).
- Act as independent party in providing recommendation on the international convention on WFF.

Management Authority and Scientific Authority also function as the following. Management Authority functions as to:

- Provide interpretation on the content of convention
- Issue CITES permit and certificate
- As representative of the state to monitor the trade of the CITES listed species
- Communication with CITES Secretariat
- Implementing the content of convention.

Scientific Authority functions as:

Providing scientific analysis and scientific data on the CITES listed species to Management
 Authority, especially on the NDF of the species and harvest quota.

3.3. The Provision of Export Permit or Certificate

Following the inclusion into CITES Appendix, the export of any ramin wood specimen is permitted only if the ramin timber is obtained not in contravention with the existing laws and regulation and requires an export permit for Appendix II listing. Ramin which is currently listed in Appendix II since

2004 requires an export permit, where the export permit be issued by CITES MA after necessary conditions are met. Detail of the required conditions are described below:

- a. Period from 2001 to 2004, ramin was listed in Appendix III. The required necessary conditions are:
 - The specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora. In this case, one of the laws Ministerial Decree that bans ramin from logging, except PT. Diamond Raya Timber of Riau (Ministerial Decree No. 127/Kpts-V/2001 and No. 168/Kpts-IV/2001). Ramin from other sources are considered as against the Decree and therefore illegal.
 - 2. The living specimen (if any) will be also prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.
- b. Period from 2005 and further, ramin is listed in Appendix II CITES. The required necessary condition is that the export of any ramin specimen shall require the prior grant and presentation of an export permit. The permit is granted when the following conditions are met:
 - That the export, as well as the harvest, will not cause a detrimental effect to the survival of the species.
 - The specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora.
 - 3. The living specimen (if any) will be also prepared and shipped as to minimize the risk of injury, damage to health or cruel treatments.

The stronger requirement after up-listing is the requirement for NDF before issuing the export permit. Since ramin has been up-listed into Appendix II in 2004, CITES SA shall provide NDF in addition to the requirement as in Appendix III. Since only one Forest Concession Company granted permit to harvest ramin under current Government Regulation, PT DRT, the operational and administrative works was relatively simple. CITES MA determines the export quota based on the NDF assessment carried out by CITES SA (LIPI), then CITES MA issues export permit based on those data and other accompanying documents. In the NDF assessment, the SA forms a team called as 'CITES Ramin Harvest Assessment Team (CRAT)'. The 'CRAT' abbreviation is used in this report only and therefore might not be found elsewhere. This team consists of scientists, researchers and field officers representing relevant stakeholders as described in next section.

CRAT work upon request by CITES MA and the cost for field activities is provided by the company. Whether CRAT could make an independent assessment regarding the quota for the company who provide the cost for field survey is highly dependent on the team itself. In the monitoring of existing stock piles of ramin in the warehouse of the company, CITES MA establishes coordination with its

regional office of PHKA, BKSDA which is located in each province including Riau Province. In most cases, BKSDA utilizes stock report from the company rather than making direct examination in the field or warehouse of the company and then sending the information to CITES MA. Coordination between BKSDA as regional office of PHKA (CITES MA) and Provincial Forest Service and District of Forest Service might remain unclear in the implementation of CITES, especially on NDF. Provincial Forest service has the authority to issue documents related to forest product legality in its own respective province, whereas BKSDA regulates the harvest permit and distribution of CITES listed species and non-listed wildlife fauna and flora.

3.4. Provision of scientific assessment of ramin stock and NDF

Scientific assessment to determine harvest quota and NDF is aimed to ensure the sustainable harvest of ramin meaning that the harvest does not cause detrimental effect to the species (population and habitat). In the execution of the assessment, Scientific Authority forms a field assessment team, as described earlier. This team is led by National Institute of Science and consists of relevant research institutions, universities, Provincial Forestry institutions and local NGO. The first team was formed in 2005 in response to the up listing of ramin into Appendix II. The selection mechanism of the team member is still unstructured. The team has surveyed PT. Diamond Raya Timber of Riau based on the request by the company and the cost of the field assessment is borne by the company.

The team carries out an assessment to ensure the company follows current practice for Sustainable Forest Management, especially on the practice of silvicultural system based on diameter limit, the capability of management to comply with relevant regulation and the exported volume of the previous year. Overall harvest of the forest in the concession is determined by annual coupe and approved by DG of BPK. Annual harvest quota for ramin is treated differently as regulated by the Ministerial Decree, which is determined by CRAT. CRAT assess all logging document and conduct a field survey for potential of standing stock, conservation aspect, production, residual stand management, natural regeneration of newly logged over stands. The team sets up several observation plots to identify the actual growing stock. In the plot, several parameters were measured such as number of stem per hectare, height, diameter, basal area, etc. From the result of the observation plot, the sustainable level of harvest determined. In the determination of harvest quota, the team also evaluates the results of post harvest inventory to evaluate residual stand and their regeneration capacity. The team also evaluates previous year exports and then determine the harvest quota with the most conservative one. The recommended harvest and export quota then submitted to the CITES MA for decision on the annual export quota of ramin. This quota is reported to CITES Secretariat.

The harvest quota must be in synchrony with the existing and approved annual harvested of volume and their related requirements.

Silvicultural system currently apply in peat swamp forest is Indonesian Selective Cutting and Replanting (TPTI). In this system, the number of stems to be cut is determined by the pre-harvest inventory. Certain number of stems should also be retained for the source of seed for natural regeneration. In general, the number of stem to be cut for all species per ha is two-third, proportional to all species with stem diameter above 50 cm at diameter breast height, except ramin. Immediately after harvesting, a post-harvest inventory is carried out to determine the natural regeneration status and carry out enrichment planting if inadequate natural regeneration occurs.

However, in many cases, this field requirement is frequently not executed by the concessions due to its high cost. Poor monitoring and lack of enforcement by designated institutions have contributed to the poor implementation of post harvest inventory and maintenance of residual stand, regeneration and management of seed trees. In term of determining NDF, these conditions should have been critically analyzed prior granting subsequent harvest permit.

After granting annual harvest and export quota by CITES MA, the Scientific Authority should monitor both export permit granted by the CITES MA and the actual export of such specimen. The Scientific Authority could provide scientific reason to limit the grant of export permit, if necessary, in order to prevent from overexploitation of the species throughout its range of distribution and ecosystem.

3.5. Determination of Harvest and Export Quota

There are several measures are used as an attempt to ensure sustainable harvest of forest under Government rules and regulation, such as harvesting under General Protection and Conservation of Forest Tree Species and under CITES regulation and local government policy to limit the harvest to ensure sustainability and or based on traditional belied and knowledge. Below are some examples:

3.5.1 Harvesting under General Protection and Conservation of Forest Tree Species.

Under general Protection and Conservation, the harvest of wild flora and fauna is allowed only outside the conservation areas and protected areas, such as production forests and forest areas allocated for conversion to other uses (convertible forests). Harvest of wild flora and fauna in these types of forests are also regulated based on their conservation status. Endemic, threatened or

endangered species are prohibited to be harvest or extremely restricted to be harvested. Tree species which have this condition is regulated their harvest based on their diameter limit and population size and or other criteria as described by IUCN, such as endemic status, Reproduction/regeneration capability, Ecological importance, endangered due to trade etc.

3.5.2 Harvesting under CITES Implementation (AAC and Harvest Quota)

As described earlier, CITES Scientific Authority carries out a field survey to determine whether or not the harvest will cause harmful effect to the population and habitat of the species. Based on this survey, CITES SA determines harvest and export quota of the calendar year, based on NDF, previous export figure and current stock. Currently, CITES MA issued export quota for ramin of approximately 8 000 cu m per year, only from PT DRT with the total area of peat swamp forests of approximately 90.000 ha. Other aspects should be considered when determining the harvest quantity if wild life Fauna and Flora such as population distribution, geographical distribution and price. These aspects are mostly neglected in harvest quota determination. This is primarily due ti lack of reliable data on the population of each species.

3.6. Export Regulation

According to current regulation of exports of timber product, a set of documents should be provided before the shipment of the product. As standard procedure, legal timber is accompanied by legal documents (paper trail) from the stump to the point of export. For example is *forestry legality document* (Surat Keterangan-Sahnya Hasil hutan - SKSHH), Receipt for the payment of forest product royalty, Reforestation fees etc. which also indicate the origin of timber. In the subsequent process of the timber until they are shipped to the overseas destination, there are also accompanied by additional document.

According to the review by Lim *et al* 2004, some of current regulations are in conflict one to another. Ministry of Forestry regulates forest management, from logging though timber processing. Ministry of Industry and Ministry of Trade regulates processing of the timber to end uses and international trade. There may be some conflicts in the implementation. In addition to that, some provincial governments as an autonomous government also issue regulation to give more benefit to the local or promote local direct revenue. The example of this harvest permit and contribution to the local. In general, these complex documents could cause high cost and the uneasy task for the office of Custom and Excise to carry out trade control and field inspection and finally make the products less competitive. Some of those documents are listed below:

(1). Forestry Legality Documents (Surat Keterangan Sahnya Hasil Hutan-SKSHH)

- (2). Receipt for the payment of forest product royalty, reforestation fees and export tax.
- (3). Export permit (SATS-LN) issued by CITES MA
- (4). BRIK Endorsement Document
- (5). ETPIK Endorsement Document
- (6). Receipts of export tax
- (7). Custom Export Declaration Form (PEB) (by Freight forwarder-FF)
- (8). Shipping Manifest (by FF)
- (9). Letter of Indemnity (by FF)
- (10). Bill of Lading (B/L) (by FF)
- (11). Delivery Order (DO) (by FF)
- (12). Shipping Permit (by Port administrator)
- (13). Mate's receipt/Dock Receipts (by Shipping Company)

All complex documents as listed above are processed and accompany the products before shipping to the destination ports. The first fourth documents are processed and regulated within the Ministry of Forestry. The others are regulated by different Ministry, such as Ministry of Trade and Industry or other authorities.

Within the Ministry of Forestry, the technical conflict may occurs within BKSDA (Center for Natural Resources Conservation, under DG PHKA) and Dinas Kehutanan (Provincial Forest Services) in the document processing. BKSDA is the extension of DG PHKA which is the CITES Management Authority, whereas, Provincial Forest Service is local authority for forest managements which issues some documents related to forest product from the province. Finally, the Agency of Forest Industry Revitalization Board (BRIK) issues endorsement letter for export.

In the process of export document, BRIK, which is jointly formed by Ministry of Trade (MoT), Ministry of Industry (MoI) and Ministry of Forestry (MoF), and Customs Office involve in the monitoring and checking the export of timber including ramin in the export check point and or the port.

3.7. Manual and Guidelines on CITES Implementation

The booklet containing the content of Indonesian translation of the convention, issued by the Bureau of International Cooperation, MoF, has become a key reference for CITES. Later, in 2006, CITES MA also issues several references for CITES implementation in Indonesia. This booklet covers all CITES listed species including ramin.

In the trade of wildlife flora and fauna, CITES MA has also issued procedures to obtain permit for Collection and distribution of wildlife flora and fauna for both domestic and international trade.

Since the complexity of the mechanism from collection to the export which involves procedures, regulation, institutions etc, more manuals and guidelines are still essential to be provided. The manual and or guidelines that are still needed include the sustainable methods of harvest, manual or guidelines for ramin wood identification, document processing for export etc.

Table 9. Stakeholders involvement in the implementation of CITES.

No.	Institution	Involvement	Obstacles/barriers	Measure to improve
1.	Ditjen PHKA (CITES MA)	 Administrative work Developing manual and guideline Determining quota Issuing permit/certificate Coordination to all stakeholders 	- Insufficient qualified personnel to tackle the monitoring and data assessment.	 Train personnels and reposition of qualified in the post, posted the trained personnel into the post.
2.	National Institute of Science – LIPI (CITES SA)	 assist in determining the NDF assist in determining harvest/export quota assist in monitoring the trade involve in the convention meetings 	- Insufficient fund to undertake or execute the NDF assessment	- Propose special fund to execute assessment
3.	BKSDA (as Regional office of CITES MA)	 assist in determining the NDF assist in determining harvest/export quota assist in monitoring the trade assist in conserving the habitat 	Limited qualified individual in checking ramin product	- Training workshop
4.	Central and Provincial Custom Office	 assist in controlling / monitoring the trade assist in recording the value of trade assist in collecting data on the trade and suspicious smuggling 	 Lack of knowledge and skill on identification of product 	- Training workshop
5.	Provincial and District Forest Service	 Providing data / info assist in issuing SKSHH assist in determining harvest/export quota monitoring product transportation 	 Lack of skilled individual to field check 	→ Training workshop
6.	Local Universities	 assist MA / SA in providing data assist MA/SA in the carry out monitoring and field survey 	 unclear role and inconsistent involvement 	- improve coordination
7.	Local NGO	 support of the conservation of wildlife provide data and information community awareness 	- limited access to the data	- improve coordination

No.	Institution	Main Responsibilities	Obstacles/barriers	Measure to improve
8.	Quarantine offices	 assist in recording the trade of species assist in determining the species assist in awareness 	Lack of skilled individual to identify product	- Training workshop
9.	Police department	assist in seizure of illegal product assist in combating illegal logging	- Lack of knowledge and skill on CITES	- Training workshop
10.	Ministry of Foreign Affairs	assist in developing trade network assist in monitoring trade opening the international barrier	- Lack of awareness on the specimen	- Training workshop
11.	Ministry of Trade	assist in determining the ceiling price assist in monitoring trade volume	- Lack of awareness	- Training workshop
12.	Ministry of Industry	assist in monitoring the consumption and stock assist in monitoring value added and price	- Lack of awareness	- Training workshop

IV. BARRIER IN CITES IMPLEMENTATION ON RAMIN

As has been described earlier, Indonesia as party of the convention has fulfilled most of the requirements for Appendix II of CITES not only for ramin but also for other CITES listed wildlife species both flora and fauna, even for most of protected wildlife in Indonesia. The field implementation of CITES on ramin was evaluated from the following aspects: (1) General resource management, (2) regulations, (3) institutions and human resources capacity, (4) Availability of reliable data and (5) enforcement.

After listing in Appendix II of CITES, the export of ramin requires the following conditions:

- 1. Prior to the export, it requires an export permit.
- 2. The export permit is issued by CITES MA after the required conditions are met:
 - (a). The specimens are obtained not in contravention to the existing laws and regulation of the State. This is meant to reduce the illegal conduct in obtaining ramin timbers from the forests.
 - (b). The specimens are obtained in such a way that will not cause a detrimental effect to the survival of the species (population and habitats). This is one of the objectives to list the species into CITES Appendix which is to ensure the sustainability and the conservation of the species.

In order to comply with the requirement CITES MA has carried out several efforts, such as improving national legislation, setting up appropriate mechanism, designation of relevant institutions, capacity buildings and enforcement. CITES MA has carried out some field action to improve and promote effective implementation. However field practice still faces a variety of barriers.

The barriers in the implementation of CITES are present not only for ramin but also for other CITES listed species of wild flora and fauna which may be interrelated one to another.

4.1. General Resources Management

Forest in Indonesia is approximately 120 millions ha consisting of forests for timber production forest, for conservation and protection of wildlife and ecosystem and convertible forests. The later is forest which is allocated for conversion to other uses such as palm oil plantation, rubber plantation, human settlement, industry etc. Those forests distribute along the biogeographical

condition forming mountain, lowland, peat swamp, coastal and mangrove forests.

In general, management of wild fauna and flora, listed and non-listed into the CITES encompass all forest types of the forests with more specific arrangement in each forest type. For example, collection or harvest of wildlife in conservation forest for commercial purposes is prohibited, whereas collection and harvest in other forest area is regulated based on its specific condition, especially in accordance with its conservation status in the population and in the geographical region. Management of wildlife in timber production forests, which are mostly managed by concessionaires, is integrated to the whole management of forest management units. And therefore, the supervision and monitoring are conducted in conjunction with the forest management unit level which are in fact rarely or poorly executed. In every certain amount of area to be harvested, certain portion of intact forest, must be retained for plant genetic resources conservation. However, in the field this regulation is not fully implemented.

Specific to forest tree species, the harvest of most forest tree species, regardless the habitats, is regulated by State law (Undang-undang), Presidential Decree, Ministerial Decree, Regulation by Director General etc, primarily based on their conservation status, ecological and traditional value and or culture. The tree species could be totally banned for harvest, allowed for harvest with diameter limit, or harvest based on population size. The implementation of these regulation, monitoring and enforcement are generally weak. The weakness is due to the vast area covered, data deficiency, poverty, infrastructure, awareness and operational funding availability.

4.2. Regulation

Existing rules and regulations as mentioned earlier have been sufficient to implement CITES not only for ramin but also for other wildlife, listed and non-listed species (PHKA, 2006). As has been described, Indonesia has fulfilled all necessary requirements to implement the convention in accordance with the requirement of Appendix II CITES. However, operational activities to arrange the implementation from one to another institutions are extremely limited. This is the case between Provincial Forest Services and BKSDA, BPK and PHPA etc in term of the issuance of harvest permit, monitoring and enforcement. According to the field observation and discussion with some officers of BKSDA, the conflict frequently occurs between Provincial Forest Services and BKSDA in the issuance of harvest permit and document processing. The basis of the conflict could be from the misinterpretation of rules and regulation the internal interest of each institution. Provincial Forest Service is Forestry Agency under local government (province) and commonly forced to increase local government revenues. BKSDA is under Ministry of Forestry, which is part of the central government bodies (PHKA). Current condition, the autonomous province is practically more powerful than the central government in the decision making process for the utilization of

forest resources in their respective province. This perception frequently results a potential conflict in the implementation of regulation. This might not occur for ramin, which is only from one province in Indonesia.

At the moment, the harvest of Ramin is permitted only in Riau (PT. DRT). Monitoring the harvest, the shipment of ramin from Riau to other places should have been theoretically simple. The guideline for the transportation is similar for most species. MoF has released new timber administration (PP. No.6) in February 2007. However, this regulation will be in effective after technical guidance is issued to avoid potential conflict in the field. There are some confusion in procedures of timber permit and administration within the institutions. Misinterpretation in the content of the regulation mostly occurs among officers in charge. Therefore, SOP is required in order to process the document properly in timely manner. For the CITES listed species, BKSDA is a designated institution responsible for the monitoring the harvest and trade in their respective location. Director of Biodiversity Conservation has appointed several duties of BKSDA in relation to the CITES implementation in the field as follow:

- 1. to issue recommendation letter for wildlife harvest and trade;
- 2. to issue recommendation letter for CITES permit (SATS-LN);
- 3. to provide stock report of species subjected to CITES to MA.

In order to obtain the recommendation letter, an individual or company submits a request letter to the office of BKSDA in the province. Then BKSDA conducts a review of the document and the examination stock report (BAP). Ramin stock examination is carried out regularly, rather than based on that request letter.

BKSDA as regional representative of CITES MA is still facing numerous difficulties in the field implementation, such as knowledge and skill to identify ramin timber and to differentiate it to other specimen during the port inspection. Officers designated to tackle CITES recommendation letter are mostly unaware of ramin finished product.

The same condition occurs in most offices of Custom and Excise, including in Riau. Custom officers have been provided technical guidelines in export permit procedures. However, training workshop is still required to have full understanding on the guidelines. Currently, the duties are executed only based on the officer interpretation and initiatives.

4.3. Institutions and Human Resource

Implementation of CITES on ramin involves many institutions as shown in Table 8, such as Ministry of Forestry, National Institute of Science, Custom Office, Police Department, Attorney,

Court, Ministry of Trade and Industry, and Plant Quarantine etc as listed in Table 9 (Stakeholders involved in CITES implementation). Large population size in a wide range of geographical distributions, poverty, education and enforcement influence the effectiveness of implementation whatever the rules and regulation made including CITES. The effective implementation is affected directly by awareness, knowledge and skill in each institutions and capacity.

Officers involve in the implementation have a wide range of level on knowledge and understanding on the content of this convention, especially on the rules, regulation and requirements. According to the convention, CITES MA leads the supervision in the whole aspects of implementation, followed by CITES SA, Customs Office and Excise, Port Authority, Traders etc. These institutions (agencies) are integrated in the implementation through a certain mechanism, meaning that coordination and communication among involved institutions are a crucial part. This is an example on the cause of ineffective implementation of CITES (Saleh, 2005). BKSDA as the regional focal point for CITES is obliged to be familiar with this rules and regulation. However, frequent reposition of duty officers could also make ineffective CITES implementation. Because by this reposition there will not be sufficient time to become familiar and to improve skill on the implementation.

Custom officers are also low in their capacity to implement CITES particularly in validation a CITES permit and skill to differentiate ramin from other species. According to resolution of the 13th COP specific information should be included in a CITES permit such as CITES name and logogram, unique number, type of document, validity time, exporters address, importer address, port of departure and port of destination, etc. Custom officers are frequently lacking in knowledge on CITES permit which is valid only when used in the designated port of departure (*Samedi, pers.comm*). It is related to the fact that most of customs officers are mostly lack of forestry background and knowledge on timber.

Identification of ramin timber is sometime difficult to be executed in the field, beside lack of knowledge and skill to identify the species, equipment is insufficient to quickly differentiate ramin to other timber. Furthermore, Ramin timbers are mostly transported with other species and might have been mixed with other timber species.

BKSDA also holds a crucial key in CITES permit process, especially in the monitoring of current stock, examination of stock and provides recommendation for CITES permit to CITES MA.

BKSDA has some limitation to fulfill this obligation due to lack of officers who are able to identify ramin specimen. Solving this barrier, BKSDA works with other forestry institution in the verification and clarification of timber product.

4.4. Availability of Reliable Data

Despite ramin has been considered to be extinct and has been included into CITES Appendix since 2001, there has not been any population inventory carried out causing scientific and reliable data on ramin are still limited for the whole area of its distribution. The first inventory on timber standing stock was conducted in 1975 and followed by the second survey in 1983 by Directorate of Forestry Planning. Forestry planning conducted the third survey in 1997. The recent survey was carried out in 2005 (Hendalastuti and Hidayat, 2006). These surveys were not specific to one species such as ramin and therefore the data are still insufficient to draw good management planning. Irregularity of survey (inconsistent data series) and scattered and only small area covered, with different methodology could result in unreliable data (less accurate) which could cause misleading. As in most forest tree species, this condition also occurs on ramin, especially in the prediction of population and the estimate of standing stock. A set of data, especially on vegetation, are required for the practice of sustainable forest management, such as population distribution, diameter class distribution, growth and yield, natural regeneration etc.

PT DRT in Riau should have complete set of data and pooled from a pre-harvest inventory for each annual coupe. However, it does not mean the current annual data could represent a whole standing stock in the concession. Bismark et al. (2005), has made prediction of standing stock of ramin based on secondary data collected from various sources. However, the data are still insufficient to be used for management plan.

4.5. Law Enforcement and Coordination

Law enforcement maybe one of the most difficult barrier to be removed not only for CITES implementation but also implementation of other rules and regulations in forest management in Indonesia. All aspects as cited by Keong 2006 in Table 7 are subject to be violated without any effective measures to reduce it. There are thousands of examples for those violations as have been frequently blown up by various media, such as daily newspaper and electronic. Most cases of the violation, especially illegal logging are intentionally frozen. Directorate of Biodiversity Conservations has made records and database for this violation (Trio Santoso, *Personal Communication*).

As previously mentioned, Government through Ministry of Forestry has issued a number of regulation to achieve sustainable forest management in Indonesia, such as imposing the use of criteria and indicators for sustainable forest management (252/Kpts-II/1993) and logging moratorium (Ministry Decree number 127/Kpts-IV/2001) listing ramin into CITES Appendix. The policy might have given impact to the trade, but still insignificant to the sustainable management of

ramin.

Logging moratorium (as Minister Decree 127/Kpts-IV/2001) has regulated the following aspects:

- No logging activity of ramin is allowed in production forest, conversion forest and community forest and no trading activity is allowed both domestic and international.
- Round wood (log) of ramin yielded before this regulation come into force is forbidden to be traded and only secondary product such as sawn timber and panel is allowed.
- Provincial and District forestry service along with Natural Resources Conservation Center (BKSDA) should conduct inventory of round wood stock before this regulation is approved where the inventory result should be frozen (Article 4).

The above regulation was amended by Ministerial Decree No. 168/Kpts-IV/2001) which allows harvest and trade of ramin under certain circumstances (Suhartono and Mardiastuti, 2002) as listed below:

- The concessions are allowed to log and trade ramin after obtaining certificate of sustainable forest management from independent assessor, such as Lembaga Ekolabel Indonesia (LEI) and Forest Stewardship Council (FSC).
- Ministry of Forestry issues permit on ramin trade and utilization after gaining recommendation from CITES Scientific Authority, National Institute of Science (LIPI) who ensures that the harvest will not cause detrimental effect to the survival of the species.

Since the issuance of the above regulations, holders of forests concessions, except PT DRT, should have not harvest and trade ramin both domestic and international. However, reports on the illegal harvest and international trade of ramin remain high. The timbers pass through border between Indonesia and Malaysia both in Sumatra and Kalimantan. Smugglings and other illegal conduct, such barter trade still occur. This illegal logging activity seems to be untouchable and is still taking place to date. This has always become a very sensitive issue in the meeting of the Tri-National Task Force of Ramin Trade between Indonesia, Malaysia and Singapore.

To ease the procedure and improve monitoring of ramin trade and transportation, CITES MA has issued standard procedures for domestic and international shipment of wild fauna and flora in the form of transportation permit, *Surat Ijin Angkutan Tumbuhan dan Satwa-Dalam Negeri-* SATS-DN) and *Surat ijin Angkutan Tumbuhan dan Satwa untuk ke Luar Negeri-*SATS-LN. Domestic transportation of CITES listed species must be accompanied by this document (SATS-DN) and for International trade this document has to be accompanied by an export permit. In February 2007, Directorate of Biodiversity Conservation has also launched procedure to obtain CITES permit, called *First In First Out* (FIFO), which is identical with the "first come first serve" service. Request for CITES permit is sent to the Director of Biodiversity Conservation accompanied by the following

documents:

- (a) Export Application Form (Form C) with recommendation from BKSDA, a Regional Office of CITES MA.
- (b) Examination document (BAP) of export stock by BKSDA
- (c) Stock Mobilization Report
- (d) Origin of specimen (i.e. Capture permit, SATS-DN, CITES Import permit)
- (e) Recommendation from wildlife trade association and quota.

Apart from the above CITES MA procedures, Lim *el al* (2004) has reviewed information that ramin which has been illegally logged in Indonesia still passes its way to the world market directly from Indonesia to importing countries and or via Malaysia and Singapore. This illegal trade is partly as a result of poor control by Customs officials in the port of exports or authority to prevent smuggling through small seaports. Some traders are benefiting these administrative and legal loopholes to 'launder' a certain amount of illegal ramin timber. As mentioned earlier, the complexity of the regulation has also caused some difficulties in custom check. Mostly, Custom officers have to deal with more than 150 regulations in export and import process. Many of them conflicting each other and conflicting with local regulation as well. Lack of technical skill to check the product may also contribute to the lack of custom check by Custom Officers, which enables smuggling (Lim et al, 2004).

The smuggling occurs through the following modes (Directorate of Biodiversity Conservation, 2006) are:

- 1. Bribe related institution such as Forestry office, Custom office, Police.
- 2. Providing false document in the issuance of permit which is contravention to regulations
- 3. Manipulate the origin of species
- 4. Manipulate the transportation permit
- 5. Manipulate SATS-DN
- 6. Manipulate harvesting and trading document

A local NGO, Jaringan Kerja Penyelamat Hutan Riau (Jikalahari) has also detected the lack of law enforcement within Provincial Forestry Office, Customs, Police etc to eradicate illegal logging and smuggling of ramin from Riau to Malaysia (Noviriyanti, 2005). Kontan magazine (2006) cited the statement of Indonesian Minister of Finance related to the barrier in the handling of smuggling and illegal logging such as low salary gain by the officer which is not compensated with the risk of duty, integrity of officer, lack of facility, lack of funding including for operational cost and failure of custom system (Kontan magazine, 2006). The limited number of officers required to supervise and monitor trade in customs office also contributes to the smuggling activity.

Lack of coordination is also a great problem in Indonesia. The coordination among institution within and between the Ministry of Forestry, Ministry of Trade and Industry, Customs and the National Bureau of Statistics is still considerably poor and therefore need improvement for effective implementation (Lim *e al* (2004).

V. INITIATIVES AND MEASURES TO IMPROVE CITES IMPLEMENTATION

Barriers in the implementation of CITES on ramin in Indonesia since its inclusion into appendix III and II have been discussed in Chapter 4. Other range countries also face more or less similar problems in their implementation, which is primarily related to the regulation in resources management, trade and enforcement. Importing countries, which are mostly developed countries with better law enforcement and trade monitoring system, may face minor problems. Some CITES MAs of those developed countries may have problems related to their custom checks.

To improve the implementation of CITES in both producing and consuming countries, some national and international initiatives have been conducted. Tri – National Task Force on Trade of Ramin is one of the initiatives not directly intended to improve CITES implementation but have been positive to improve coordination on the monitoring of trade between Malaysia, Singapore and Malaysia.

5.1. ITTO Expert Meeting

In order to promote the implementation of CITES, ITTO has conducted an ITTO expert meeting on the effective implementation of the inclusion of ramin Into Appendix II of CITES which was held in Kuala Lumpur, Malaysia, May 2006. CITES Management Authority and Scientific Authority of each country reported their progress in the implementation of CITES in their respective country.

The ITTO Expert Meeting has successfully identified gaps and weaknesses that needed to be addressed to enhance the effective implementation of the inclusion into CITES Appendix. The Meeting has also produced a list of priority actions and recommendations which were directed to countries, the trade, the ITTO Secretariat, and the CITES Secretariat for consideration and implementation.

Recommendation of the Meeting consists of four areas which cover not only the implementation of CITES but also a whole process of ramin conservation and sustainable management. The areas are as follows: (1). Ecological and Management Status of Ramin (*Gonystylus* spp), (2). Review on Market and International Trade of Ramin, (3). Capacity Building for Meeting the Requirements of CITES Appendix-II Listing of Ramin, (4). Coordination and Cooperation for the Effective Implementation of the Inclusion of Ramin into Appendix II of CITES.

5.2. National Workshops

Indonesia CITES MA and SA have conducted a series of meeting, technical workshop, direct dissemination of CITES Guideline to relevant stakeholders, etc. To some extent, the efforts are still limited compared to the huge problem and complexity of the implementation process. CITES MA has conducted frequent workshop internally to improve awareness, knowledge and technical skill in the implementation. To complement the efforts, three National Workshops have been conducted in Bogor and Jakarta. The workshops are funded by ITTO pre-project on the identification of ramin conservation and rehabilitation status of ramin. The two workshops related to the topics of (1) Conservation and the Establishment of ramin in Indonesia (2) Policy Option on the conservation and utilization of ramin in Indonesia. The third workshop which was conducted recently (July 2007) dealt with the evaluation and the promotion of CITES Implementation on Ramin funded by the current ITTO project. Workshops results and set of recommendation are produced. Ideally these recommendation should be followed up by relevant stakeholders.

5.3. Training and Extension

Institutional and human resource capacity might be improved through providing set of guidelines, manuals and facilities in the implementation, training, extension, discussion and workshop. These activities are commonly used to enrich their awareness, knowledge and technical skill of relevant stakeholders.

Training workshop is one of the effective measure to improve human resource capacity. However in most cases the choice of participant is not a simple task. The most important aspect for the training is participant selection. Attended participants are mostly not from the right position. This selection is fully relying on the commitment of the institution and each officers. Our previous experience in the selection of participant for the training workshop on ramin wood identification has proven the problem.

Below are some of training workshops required to improve CITES implementation (Oktarita and Komar, 2007):

5.3.1. Training Workshop on CITES Convention, Requirement, Rules and Regulation

Facilities and instrument are required to ensure that the convention is implemented, the progress of its implementation is required to submit report on trade of CITES listed species.

Since joined CITES, DG PHKA as Management Authority has continued disseminating the contents of the treaty and its requirement to relevant communities and authorities dealing with CITES in order to improve implementation. It is understood that level of education of the officers, such as provincial and district forestry service, BKSDA and custom office influence the effectiveness of the implementation. However, the continued effort to improve human resource capacity is a continuous effort and very crucial.

The training might be directed to address the following two objectives:

- 1. To enhance knowledge on CITES convention, regulation and implication to the trade of the CITES listed species.
 - Translation of the content of the convention into local language is critical importance to improve knowledge and skill on CITES to be used for extention.
- To improve Government regulation in relation to CITES implementation on ramin.
 One of the obligations of party is to provide supporting regulations. In response to this obligation, Indonesia has issued a number of regulations to ensure effective implementation.
 DG PHKA has provided information and explanation to wide range of stakeholders ever since.

5.3.2. Training Workshop on the Adoption of Guideline, Manual and SOP

In order to obtain correct interpretation on technical aspect, training and extention on CITES guideline, manual and SOP are important which should focus on technical aspect. The target participant should be selected properly. The priority should be given to institution that formally tackling the permit monitoring and control such as:

- BKSDA;
- Local forestry services and;
- Custom office.

5.3.3. Training on Scientific Assessment and Monitoring for Standing Stock

Setting up management plan of natural resource requires scientific and reliable data. Ramin grows in peat swamp forest area which has specific soil characteristic for which the accessibility for inventory is extremely poor. However, there are a number of studies regarding ramin potential stock even though the field survey is still limited in term of sampling intensity and the total area. In order to have better management the biological and ecological data should be validated through field inventory. In order to have more accurate and reliable data, scientific method need to be applied. Training on scientific assessment that covers above concern and monitoring is a critical important. It should cover also the following specific area:

- 1) Sampling technique
 - This training session should provide knowledge on sampling technique to ensure accuracy, efficiency, and reliability within the availability of funding.
- 2) Permanent sample plot establishment and monitoring Establishment of a permanent sample plot requires careful observation. It should represent the whole population and the location is secure for long period. This plot should be able to be used for long term ecology study.
- 3) Computer analysis on data sampling and computation.
 Training on the use of computer analysis and its software, particularly to ensure accuracy of the data and effectiveness and the computation to ease interpretation.
- 4) Allowable Annual Cut method and Quota Adjustment Indonesia Scientific Authority has been using AAC as the approach to determine quota of ramin export. The training is designated to improve skill for officer involved in quota adjustment field inventory of population.
- 5) Database application, mapping and GIS application
 In order to establish database, specific training on data base management is required as well mapping and GIS analysis.
- 6) Non detrimental effect investigation for securing species survival CITES secretariat has provided a guideline for non detriment finding. The workshop/training for non detriment finding and other information is necessary to improve implementation of rules and regulation including CITES.

This training contains the introduction and the use of the technique, the method and the software. The target groups of the training should include:

- 1. Regional Natural Resource Conservation (BKSDA);
- 2. Provincial and District Forestry Service;
- 3. University and;
- 4. Forest Concession Company.

5.3.4. Training Workshop on Fulfilling CITES Document

Permit issuance of specimen subjected to CITES involves a wide range of institutions from Ministry of Forestry, Ministry of Industry, Ministry of Trade and customs office. Legal document for export are CITES permit from Ministry of Forestry, Health certificate from quarantine, Invoice from exporter, packing list, Bill of Lading or Airway Bill (AWB), STBS from Ministry of Finance, NPWP (Nomor Pokok Wajib Pajak), Letter of authorization when using broker company, Endorsement letter from BRIK, Surveyor report from independent institution, EPIK from Ministry of trade and industry.

5.3.5. Training Workshop on Chain of Custody (CoC)

The biggest challenge in CITES implementation is to enhance law enforcement and combating illegal logging and trading. To ensure the legality of the ramin products, it requires chain of custody to trace the origin of the products. Other project, such as FLEGT-Indonesia has developed bar code system as a complement to the legal document of timber, attached to the tree stem during the pre-harvest inventory. This barcode system is designed to be used for tracking the timber origin, in addition to the aspects used for chain of custody assessment.

5.3.6. Training Workshop on Quick Identification of Ramin and Look alike Species

There are many tree species harvested from Indonesia Tropical Forest and thus it becomes a challenging to identify each species. Ramin is exported as finished or half finished product such as Louvre Door, Moulding E4E, Moulding profile, laminated board, laminated dowel, etc. In the practice, it becomes more difficult to recognize ramin when it has been processed into finished product.

Wood identification skill is therefore important for the officer dealing with the legal process of CITES permit and inspection. The following process such as issuing SKSHH by Provincial forestry service, CITES permit recommendation by BKSDA and verification process of custom office require better skill in identification.

Training on wood identification technique is one of priority of training to improve CITES implementation in Indonesia. Objective of the training is to improve skill on identifying ramin timber and ramin finished products using the most practical and simple technique.

Target group of the training should be:

- 1. Provincial and District Forestry Service;
- 2. Natural Resource Conservation Institute (BKSDA) and;
- 3. Custom Office.

5.3.7. Training Workshop on Development of Effective Coordination

Trade controls for Ramin from Indonesia, as key range State, is hampered by lack of co-ordination amongst relevant agencies central and regional governments. This is coupled with problems in trade control between Indonesia, Malaysia and Singapore. The availability of online system within and between the institutions could improve the coordination. Improving the condition could be achieved through training.

The training should cover these areas:

- 1. Online system of database management,
- 2. Data confirmation system and,
- 3. Formulation of guidelines, manual and SOP.

Target group of the training should include:

- 1. Provincial and District Forestry Service;
- 2. Natural Resource Conservation Institute (BKSDA);
- 3. Custom Office;
- 4. Police department;
- 5. Court Office;
- 6. District Attorney;
- 7. Ministry of trade;
- 8. University;
- 9. Non Government Organization and;
- 10. Forest Concession Company.

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