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GUIDELINE FOR NON-DETRIMENTAL FINDING ASSESSMENT ON RAMIN *Gonystylus* spp.

FORESTRY RESEARCH AND DEVELOPMENT AGENCY
IN COOPERATION WITH
ITTO – CITES PROJECT

Bogor, 2010

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Activity document 1 "Improving Inventory Design to estimate Growing Stock of Ramin (*Gonystylus bancanus*) in Indonesia"
Additional Activity 1.1.

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Center for Forest Nature Conservation Research and Development
Forestry Research and Development Agency, Ministry of Forestry, Indonesia
Jl. Gunung Batu No. 5 Bogor – Indonesia
Phone : 62-251-8633234
Fax : 62-251-8638111
Email : raminpd426@yahoo.co.id

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Executive Summary

Ramin (*Gonystylus* spp.) is a member of the family Thymelaeaceae, which is currently listed in CITES Appendix II. The inclusion of ramin in CITES Appendix is based on the fact that ramin has been heavily traded, especially in the international market and most of its species are rarely found in nature and some of them are under serious threat based on IUCN Redlist criteria. Ramin timber has been used for a wide variety of finish product such as furniture, picture frames, dowels, baby crib, toys, and some other indoor light construction.

CITES regulation for species listed in Appendix II requires the criteria of Non-Detrimental Finding (NDF). Using the developed criteria, a designated party of CITES must conduct an assessment that the harvest (trade) of the species will not cause detrimental effect to the survival of the species.

CITES has published two documents as guidelines to make NDF assessment, namely (1) Guidance for CITES Scientific Authorities: Checklist to Assist in Making Non-Detriment Findings for Appendix II Exports, and (2) Principles for Non-Detriment Findings (NDF) for Trees. These two guidelines are to be used as general guidance for conducting an assessment and therefore need to be broken down into more specific for individual species. This guideline is therefore prepared specifically to ramin as genus *Gonystylus*, which consists of more than 30 species. In Indonesia, ten species of *Gonystylus* are currently found.

The objective of preparing this document is to provide technical guideline for assessing a Non-Detrimental Finding (NDF) for ramin as a genus *Gonystylus*. This document could also be used as an exercise for other Indonesian timber species to assess its NDF.

This guideline consists of three parts:

(1) General guideline;

(2) Guideline for forest management unit; and

(3) National guideline to create a radar plot.

In Indonesia, the harvest of ramin is regulated based on a quota system, which is determined using certain conservative approach or criteria to ensure the sustainable harvest, not to cause a detrimental effect to the population and habitat.

The general guideline gives list of data and information needed to conduct the NDF assessment and contains five basic elements:

(1) Biological characteristics;

(2) National distribution and population;

(3) Harvest management;

(4) Harvest control and monitoring; and

(5) Conservation and protection.

For the biological characteristics, information needed is general characteristics of ramin, regeneration ability, and habitat and edaphic factors. Information needed for the national distribution and protection includes distribution of ramin in various geographical levels (local, national, regional), population structure, and population dynamics. Harvest management includes harvest implementation, silvicultural practices, restoration, and harvest evaluation.

For harvest control and monitoring require information on monitoring and verification system, and optimization of timber products. As for conservation and protection, information needed basically is whether the species has been given enough protection and conservation actions in its natural habitat.

The list is based on the document entitled 'Principles for Non-Detriment Findings (NDF) for Trees' formulated by the Trees Working Group – CITES Plants Committee in Cancun (Mexico, 17-22 November 2008). The content of this document is adopted and later adjusted into the document accordance with the existing natural forest resources in Indonesia.

The guideline for forest management unit is a specific guideline for harvest site (i.e. concession holders). Guideline for the management unit contains more specific steps and general formula to ensure the sustainable harvest. The guideline basically contains necessary steps to ensure sustainable harvest. Some precautionary measures are in place, involving pre-harvest inventory, estimation of harvest volume, annual cutting and harvest quota. A sufficient percentage of non-harvested trees needs to be retained for safe cutting. The volume of timber allowed to be harvested is only 50% of the total existing standing volume (recommended to have minimum diameter of 40 cm), consisted of 30% for the seed tree, 10% for conservation, and additional 10% as safety factor.

For ramin, currently, the Government of Indonesia has set out a regulation that only a concession company which has been granted a certificate of sustainable harvest management is allowed to harvest ramin. In addition, the company is required to have annual planning (among other planning documents) before the company is allowed to conduct the harvest. All field assessments are conducted by a team of experts led by the CITES Scientific Authority (CITES-SA). Based on the field assessment, the CITES-SA submits a proposed annual quota which will be decided later by the CITES Management Authority.

The national guideline to create a radar plot mainly follows the 'Guidance for CITES Scientific Authorities: Checklist to Assist in Making Non-Detriment Findings for Appendix II Exports' (Rosser & Haywood, 2000). There are 6 components and 26 parameters in this guideline, each parameter having a score of 5 for the best to 1 for the worst.

Similar to the general guideline, all 26 parameters have been modified to suit the existing condition for Indonesia. These parameters are:

(A) *Biological characteristics*

(1) adaptation;

(2) regeneration ability;

(3) dispersal efficiency; and

(4) habitat type.

(B) *Distribution and population*

(5) national distribution;

(6) national abundance;

(7) population trend;

(8) quality of information regarding distribution and population; and

(9) main threat to this species.

(C) *Harvest management*

(10) illegal harvest and trade;

(11) history of harvest management;

(12) management plan;

(13) objective of the management plan; and

(14) harvest quota.

(D) *Harvest control and monitoring*

(15) harvest in the licensed area;

(16) harvest at conservation area and protected forest;

(17) harvest in non-forest area;

(18) confidence level in the harvest management;

(19) method to monitor harvest; and

(20) confidence level in the harvest monitoring.

(E) *Impact of harvest to environment and ecology*

(21) benefit of harvest (whether it is more beneficial if the species was left un-harvested);

(22) impact of harvest to the environment; and

(23) environment recovery.

(F) *Conservation and protection*

(24) percentage of un-harvested trees;

(25) effectiveness of protection; and

(26) effectiveness of harvest regulation.

By scoring all the parameters, a radar plot with 26 polygons is constructed. A larger polygon is an indication that the trade is not detrimental to the survival of the species. A small polygon means that the trade might not be sustainable and might be detrimental to the survival of the species. Parameters with small score (i.e. closer to the center) need to be given a special attention for immediate action.

One species of ramin, *Gonystylus bancanus*, has been used as a study case to test the application of the parameters and a radar plot has been constructed (as in Figure 5 in the full document). The score for each parameter is determined during the experts group meeting in Bogor.

The radar plot for *Gonystylus bancanus* was constructed during the Expert Group meeting in Bogor and finalized by Prof. Ani Mardiastuti, Faculty of Forestry, Bogor Agricultural University. The radar plot reflects the following parameters as described earlier:

BIOLOGY – adaptation;

BIOLOGY - regeneration ability;

BIOLOGY - dispersal efficiency;

BIOLOGY - habitat type;

STATUS - national distribution;

STATUS - national abudance;

STATUS - population trend;

STATUS - quality information;

STATUS - main threat;

MANAGEMENT - illegal harvest and trade;

MANAGEMENT - history of harvest management;

MANAGEMENT - management plan;

MANAGEMENT - objective of the management plan;

MANAGEMENT - harvest quota;

HARVEST - in the licensed area;

HARVEST - at conservation area;

HARVEST - in non-forest area and protected forest;

HARVEST - confidence level in the harvest management;

MONITORING - method to monitor harvest;

MONITORING confidence level in the harvest monitoring;

IMPACT - benefit of harvest;

IMPACT - impact harvest to the environment;

IMPACT - environment recovery;

PROTECTION - percentage of un-harvested trees;

PROTECTION - effectiveness of protection; and

PROTECTION - effectiveness of harvest regulation.

This radar plot could be used by managers as a quick reference to decide priority for sustainable management and conservation of a species. For detail please refer to “Guideline for Non-Detrimental Finding Assessment on Ramin (*Gonystylus* spp.)”.