Appendix

Activity Document I

PROJECT ABSTRACT

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

SUMMARY

This project addresses the assessment of the stocking of *Gonystylus bancanus* (Ramin) in Sarawak with a view to determine the sustainable harvesting limit for Ramin. The overall objective is to ensure international trade in CITES-listed timber species is consistent with their sustainable management and conservation. The objective of the project is to collect data on the status and stocking of *G. bancanus* in the production forests of Sarawak. The expected outputs are (i) status and stocking of *G. bancanus,* and (ii) sustainable harvest quota of *G. bancanus.*

EXECUTING/IMPLEMENTING AGENCY: Forest Department Sarawak and Sarawak Forestry Corporation.

COLLABORATING AGENCY: -

DURATION: 12 months.

START DATE 2008.

BUDGET AND PROPOSED SOURCES OF FINANCE

(a)	ITTO Contribution	US$ 24,900
(b)	Government Contribution (direct and in-kind)	US$ 30,415
(c)	Other Sources Contribution (specify,)	-
		Total US$ 55,315

This activity is submitted to ITTO for consideration under its Work Program activity "Ensuring international trade in CITES-listed timber species is consistent with their sustainable management and conservation," with primary funding provided by the European Commission and additional support from the USA, Japan, New Zealand and Norway.

PART I: CONTEXT

Origin/Background

The mixed swamp forest (MSF) in Sarawak is the most extensive forest type in the peat swamp forests (PSF) and has contributed greatly to the economic growth of the State in the 1950s and 1960s. However, the area of PSF in Sarawak has dwindled from 1.455 million ha in the seventies to just slightly more than 320,000 ha within the Permanent Forest Estate in 2004 (Lee, 2004). The log production of Ramin in Sarawak has also decreased drastically from 67,042 m^3 in 2000 to about 5,284 m^3 in 2006. Thus, it is imperative that the remaining PSF be managed in a sustainable manner for future generations.

Gonystylus bancanus (Miq) Kurz, locally known as Ramin telur or Ramin is a highly valued timber tree species which is found in the peat swamp forests in Brunei Darussalam, Indonesia (Kalimantan & Sumatra) and Malaysia (Tawan, 2004). Mature trees are usually of medium sized (c. 27 m tall and 60 cm dbh) (Whitmore, 1973) but can reach 50 m and 100 cm dbh (Tawan, 2004) and can be found at attitudes of up to 100 m throughout Sarawak.

It is well known that Ramin is a relatively slow growing species which has a problem of re-establishment after logging (Lee, 1977). Lee (1979) reported abundant regeneration of peat swamp species in Sarawak but lack of Ramin regeneration. From studies conducted in the yield plots established in the PSF, Ramin regeneration is problematic as Ramin tends to be suppressed by faster-growing light demanding species in the residual stand.

Ramin is listed in Appendix II of CITES and Malaysia is required to make a non-detriment finding (NDF) report prior to the approval of the annual export quota for Ramin by CITES. This is to ensure the export of Ramin is not detrimental to the survival of the species in the wild.

PART II: THE PROJECT

1.0 Project Objective

The objective of the project is to collect data on the status and stocking of *G. bancanus* in the production forests of Sarawak.

2.0 Justification

2.1 Problems to be address

Numerous studies have been conducted on Ramin in the peat swamp forests of Sarawak over the decades. A total of 64 one-ha yield plots, each measuring 10 x 10 m quadrats, have been established in the logged and silviculturally treated mixed swamp forest in Sarawak. The State authority acknowledged the need to have a comprehensive NDF report on Ramin and as such a report was prepared in December 2006 for the determination of the 2007 export quota based on data available then. Currently there is no comprehensive inventory data for Ramin from the production forests in Sarawak. During the ITTO Expert Meeting on the Effective Implementation of the Inclusion of Ramin (*Gonystylus* spp.) to Appendix II of CITES that was held in Kuala Lumpur,

Malaysia in May 2006, it was recommended that Sarawak should carry out a detailed inventory of Ramin so that a more realistic export quota could be derived based on more scientific and accurate data. The abundance, density or stocking of Ramin trees in their natural habitats, particularly in the production forests, could be obtained through such inventories. This would provide the basis for estimating the harvestable volume for Ramin. This information together with the information on biological characteristics, ecology, regeneration, trade and management are required by the NDF report.

2.2 Intended situation after Project completion

After the completion of the project a complete data set on the distribution and abundance of Ramin would be available for two production areas in the Permanent Forest Estate (PFE) of Sarawak. The information generated is necessary for the preparation of the NDF report. Through the harvestable volume and export quota the authorities would be able to regulate the harvesting of Ramin at sustainable levels given the current status of the resource.

2.3 Target beneficiaries

The target beneficiaries of this project include:

(i) The State Government of Sarawak which will gain international recognition for prudent implementation of CITES.

(ii) The Forest Department of Sarawak and the Sarawak Forestry Corporation will have reliable and sound data on the distribution and density of Ramin.

(iii) The private operators from the timber industry who have a stake in the Ramin from the production forests.

(iv) Scientists and non-governmental organizations (NGOs) interested in the sustainable management of Ramin.

The information from this project will be disseminated through various types of publications and communication media.

2.4 Risks

There is no potential risk that may seriously affect the implementation of the project. The State authorities and research institution are committed to promote the sustainable harvest and conservation of Ramin.

3.0 Outputs

The expected outputs of the project are as follows:

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

Output 1.1: Status and stocking of *G. bancanus.*

Output 1.2: Sustainable harvest quota of *G. bancanus.*

4.0 Activities

Output 1.1: Status and stocking of *G. bancanus*.

Activity 1.1.1: Identify target areas in the production forests where two PFE consisting of PSF, particularly of phasic community 1, where Ramin is dominant will be selected.

Activity 1.1.2: Assess distribution and abundance of Ramin where its current stocking and population in different areas is investigated.

Output 1.2: Sustainable harvest quota of *G. bancanus*.

Activity 1.2.1: Compute the sustainable level of harvest where the quota is determined based on knowledge of the biology, life history, demographics and reproductive capacity of the species.

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Activity 1.2.2: Disseminate outputs of project where the results of the project will be presented through publications, seminars or conferences.

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5.0 Work Plan

The project will be carried out over a period of 12 months according to the Work Plan as shown in **Table 1**.

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

OUTPUTS/ACTIVITIES	RESPONSIBLE PARTY	SCHEDULE (in months)											
		1	2	3	4	5	6	7	8	9	10	11	12
Output 1.1: Status and stocking of *G. bancanus.*													
Activity 1.1.1: Identify target areas in the production forests where two PFE consisting of PSF, particularly of phasic community 1, where Ramin is dominant will be selected.	Forestry Department Sarawak	**X**	**X**										
Activity 1.1.2: Assess distribution and abundance of Ramin where its current stocking and population in different areas is investigated.	Sarawak Forestry Corporation		**X**	**X**		**X**	**X**		**X**				
Output 1.2: Sustainable harvest quota of *G. bancanus.*													
Activity 1.2.1: Compute the sustainable level of harvest where the quota is determined based on knowledge of the biology, life history, demographics and reproductive capacity of the species.	Sarawak Forestry Corporation			**X**	**X**		**X**	**X**		**X**	**X**		
Activity 1.2.2: Disseminate outputs of project where the results of the project will be presented through publications, seminars or conferences.	Sarawak Forestry Corporation						**X**			**X**			**X**

6.0 Budget

6.1 Total Project Budget by Activity

The detail project budget by activity as shown in **Table 2**.

Table2: Detail project budget by activity (US$)

		TOTAL
10.	**Project Personnel**	
	11 Labour	19,400
	Component Total	**19,400**
20.	**Sub-contracts**	
	Component Total	**-**
30.	**Duty Travel**	
	31. Daily Subsistence Allowance	10,600
	32. Transport Costs	1,000
	Component Total	**11,600**
40.	**Capital Items**	
	41. Capital Equipment	9,300
	Component Total	**9,300**
50.	**Consumable Items**	
	51. Raw materials	2,100
	52. Fuel and utilities	1,000
	53. Office supplies	1,600
	Component Total	**4,700**
60.	**Miscellaneous**	
	61. Contingencies	3,100
	Component Total	**3,100**
70.	**Executing Agency Management Costs**	7,215
	Component Total	**7,215**
100.	**GRAND TOTAL**	**55,315**

6.2 Project Budget by Source

The project budget by source is as summarized in **Table 3**.

Table 3: Project budget by source
(US$)

Budget Components	Sources			
	ITTO	*Government of Malaysia (in-kind)*	*Other Source(s)*	**Total**
10. Project Personnel	11,800	7,600	-	**19,400**
20. Sub-contracts	-	-	-	**-**
30. Duty Travel	10,000	1,600	-	**11,600**
40. Capital Items	-	9,300	-	**9,300**
50. Consumable Items	3,100	1,600	-	**4,700**
60. Miscellaneous	-	3,100	-	**3,100**
70. Executing Agency Management Costs (*15% of total of overall project budget by activity*)	-	7,215	-	**7,215**
Total	**24,900**	**30,415**	**-**	**55,315**

PART III: OPERATIONAL ARRANGEMENTS

1.0 Management Structure

The project will be implemented by the Forest Department Sarawak and the Sarawak Forestry Corporation. A Technical Committee will be established to oversee the execution of the project. The Technical Committee will provide guidance on technical matters and ensure that the activities are carried out according to the Work Plan. The members of the Technical Committee will comprise staff from the Forest Department Sarawak and the Sarawak Forestry Corporation.

2.0 Monitoring, Reporting and Evaluation

The progress of the project will be monitored by the Technical Committee. Monthly progress reports based on the achievements of project outputs/activities of the Work Plan and a final completion report will be prepared within 2 months of the project completion for submission to ITTO.

References

Lee, H.S. 1977. Manipulation and Regeneration of the Mixed Swamp Forest In Sarawak. *The Malayan Nature Journal* 31:1-9.

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Tawan, C.S. 2004. Thymelaeaceae. In: Soepadmo E., Saw L.G. and Chung R.C.K. (Eds.) *Tree Flora of Sabah and Sarawak Vol. 5,* pp 433 - 484. FRIM, Sabah Forestry Department and Sarawak Forest Department.

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