INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PRE-PROJECT DOCUMENT

TITLE	REHABILITATION OF DEGRADED FOREST USING INDIGENOUS SPECIES THROUGH COLLARBORATION WITH LOCAL COMMUNITIES IN WEST KALIMANTAN
SERIAL NUMBER	PPD 103/04 Rev.2 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF INDONESIA
ORIGINAL LANGUAGE	ENGLISH

SUMMARY

The aim of this pre-project is to assess and analyze the necessary information needed to develop a comprehensive project proposal for the implementation of the forest rehabilitation strategy in West Kalimantan Province of Indonesia. The decline and degradation of the forest must be arrested through several activities, and therefore the specific objectives of the pre-project consist of: (i) to collect and analyze the necessary information needed to evaluate the underlying causes of deforestation in West Kalimantan, and (ii) to analyze and develop an overall strategy based on the ITTO Guidelines for Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests for a pilot community-based participatory strategy for the ecological rehabilitation and socio-economic management of degraded forests in West Kalimantan.

This pre-project seeks to define the perception of local communities on forest degradation and methods for establishing plantation with selected indigenous species towards the rehabilitation of degraded tropical forest. The pre-project is also aimed to strengthen the technical capacity of local human resources for accelerating primarily the rehabilitation of degraded forest lands.

Field: Reforestation and Forest Management- Social Forestry

EXECUTING AGENCY	KAPUS WATERSHED MANAGEMENT OFFICE OF THE Ministry of Forestry in collaboration with Faculty of Forestry, Tanjungpura University (West Kalimantan)
COOPERATING GOVERNMENTS	---
DURATION	9 MONTHS
APPROXIMATE STARTING DATE	TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US$	Local Currency Equivalent
	ITTO	**52,769**	
	Gov't of Indonesia	16,183	
	TOTAL	**68,952**	

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REHABILITATION OF DEGRADED FOREST USING INDIGENOUS SPECIES THROUGH COLLABORATION WITH LOCAL COMMUNITIES IN WEST KALIMANTAN

Part I : CONTEXT

1. Origin

The proposal derived from our concern for the continuing degradation of the tropical forest in Indonesia. Current investigation shows that rate of national forest degradation is increasing between 1.5 to 2.0% annually. However very little is being done to undertake and to solve the problem of deforestation and degradation that they should have been addressed. Very little is also being done to involve local communities who contribute to degradation in efforts at rehabilitation. Even though, it is understood that up to the present the interdependency between local communities and forest is very high not only in economical but also socio-cultural ways. Also scientific understanding on the impact of degradation on ecosystem as well as the processes of recovery after degradation specifically in West Kalimantan is very limited to be adopted.

This pre-project will be implemented by the Faculty of Forestry Tanjungpura University under the active collaboration with the Executing Agency of Kapuas Watershed Management Agency (BP DAS Kapuas) of West Kalimantan Province, the technical implementation unit of the Directorate General of Land Rehabilitation and Social Forestry of the Ministry of Forestry

2. Sectoral Policies

This proposal is relevant to the recent National Forest Priority Issue which has among it's objectives as :

- To intensify forest plantation development and rehabilitation of degraded forest resources by the involvement of local communities,
- To cope with the escalation of illegal logging for sustainability of timber and non-timber resources,
- To expand the nation's forest based products through revitalization of the existing forest industries,
- To strengthen and consolidate the forest areas with the prevention and mitigation of forest fires, rehabilitation of denuded lands, protection of water catchments and natural environment.
- To promote achievement of state and local government income and social welfare through community empowerment for afforestation, reforestation, industrial plantations, agroforestry and wise utilization of forest.

All of these are relevant to the decentralization and sector policies of Forest Management Development.

3. Programs and Operational Activities

In accordance with the National Forestry Policies primarily in the current promulgation of Law No. 22/1999 concerning Regional or Local Governance (Decentralization) and Law No. 25/1999 concerning Fiscal Balance between the Center and Regions, the

implementation and responsibility of forest management have been mostly conducted de-centrally to local government level.

The drastic change of policy has empowered the decision making system and implementation of forest management in the field by local communities. This transitional period has affected the forest ecosystem and it can only be handled by law enforcement and improvement of the local people welfare. Reforestation and rehabilitation programs like those conducted directly in the past by the central government will not be successful anymore without involving local communities. Since the local communities could implement the forest management development through the wise use of forest and rehabilitating the degraded forest, the sustainability of our tropical forest will be achieved.

PART II: THE PRE-PROJECT

1. Pre-Project Objectives

1.1 Development Objective

Arresting the decline and degradation of tropical forest through the development of forest rehabilitation strategy in West Kalimantan, Indonesia

1.2 Specific objectives

1.2.1. To collect and analyze the necessary information needed to evaluate the underlying causes of deforestation and define an overall strategy based on the ITTO Guidelines for a pilot community-based participatory strategy for the ecological rehabilitation and socio-economic management of degraded forests in West Kalimantan.

1.2.2 To develop a comprehensive project proposal for the implementation of the forest rehabilitation strategy using indigenous species.

2. Justification

2.1 Problems to be addressed

Sustainable management of forest resources and environment in Indonesia is being hampered. This is because the escalation of uncontrolled logging, forest fire and other forestland conversion. Although the underlying causes that influence people in local communities to deforest and degrade forest are generally known, they have not been specifically determined for different backgrounds and communities so that they can be addressed. The impacts of the forest degradation on the communities which depend on the forest have neither been determined nor even sufficiently ameliorated. Very little effort has been made in the rehabilitation of degraded natural forest, the unique forest ecosystem. In the degraded forest land rehabilitation through block planting with exotic and adaptive species has been done in Indonesia in the scattered industrial plantations however it is still limited compared with the degraded forest land area.

In West Kalimantan province degraded forest area needed to be rehabilitated comprises 5,777,560 hectares from the total forest area of 9,178,760 hectares.

Table 1 indicates the distribution of degraded forest area in each regency of the province (BPKH-III, 2002).

Table 1. Distribution of degraded forest area (in hectares) needed to be rehabilitated in West Kalimantan.

Num.	Regency	Forest area	Degraded forest	% deg. forest
1	Bengkayang	225,015	200,700	89.2
2	Landak	291,850	166,800	57.2
3	Pontianak	501,770	395,100	78.7
4	Sambas	210,545	174,200	82.7
5	Sanggau	727,290	650,700	89.5
6	Sintang	2,185.195	1,131,100	51.2
7	Kapuas Hulu	2,528,275	905,800	35.8
8	Ketapang	2,508,820	2,155,160	85.9
Total	**West Kalimantan**	**9,178,760**	**5,777,560**	**62.9**

In the regencies of Sanggau and Bengkayang the percentages of forest degradation were among the highest followed by Ketapang, Sambas and Pontianak regencies. It is indicated that the total coverage of degraded forest area in West Kalimantan Province was 62.9 %, including mostly secondary forest and degraded forest land, besides those existing in the non-forest area. Currently, through the national movement on forest and land rehabilitation program, the government of West Kalimantan was decided to initially rehabilitate 9,000 hectares of degraded forest area in 2004. This rehabilitation program hopefully will motivate further reforestation program in the country.

In the rehabilitation programs, unfortunately, in the past local communities living near forests were not seriously involved and empowered, therefore they have not had direct access. Since community living near its own land and resources on it, there is the need to involve them if successful rehabilitation is to be made. Involvement of the local communities will not only lead to understanding of why and how they contribute to degradation but also what methods and species they perceive can be used to rehabilitate the degraded forests so that they can have maximum benefit. Programs on rehabilitation of degraded forest involve the commitment of financial resources, which in the rural communities are always scarce. There is thus the need to determine the costs of the rehabilitation programs as undertaken by local communities using different establishment techniques so as to provide other local communities and or non government organization which want to undertake similar programs in the future.

Based on the stated description, the indicated problems can be formulated as follows:

- Escalation of uncontrolled logging, forest fire and conversion which cause forest area as a natural resource is not secure.
- Underlying causes and impacts of deforestation have not been determined;
- Secondary forest and degraded forest land are now representing the most significant coverage.
- Action to ameliorate the impact of forest degradation is not sufficient;

- Local community living near forest has not been directly involved and empowered in rehabilitation program;
- Rehabilitation programs in the rural community level are always scarce in supporting resources;
- Sustainable Forest Management in West Kalimantan Indonesia is being hampered.

From the formulated problems it can be developed a problem tree for the prospective strategies towards sustainable forest management in West Kalimantan, as follows :

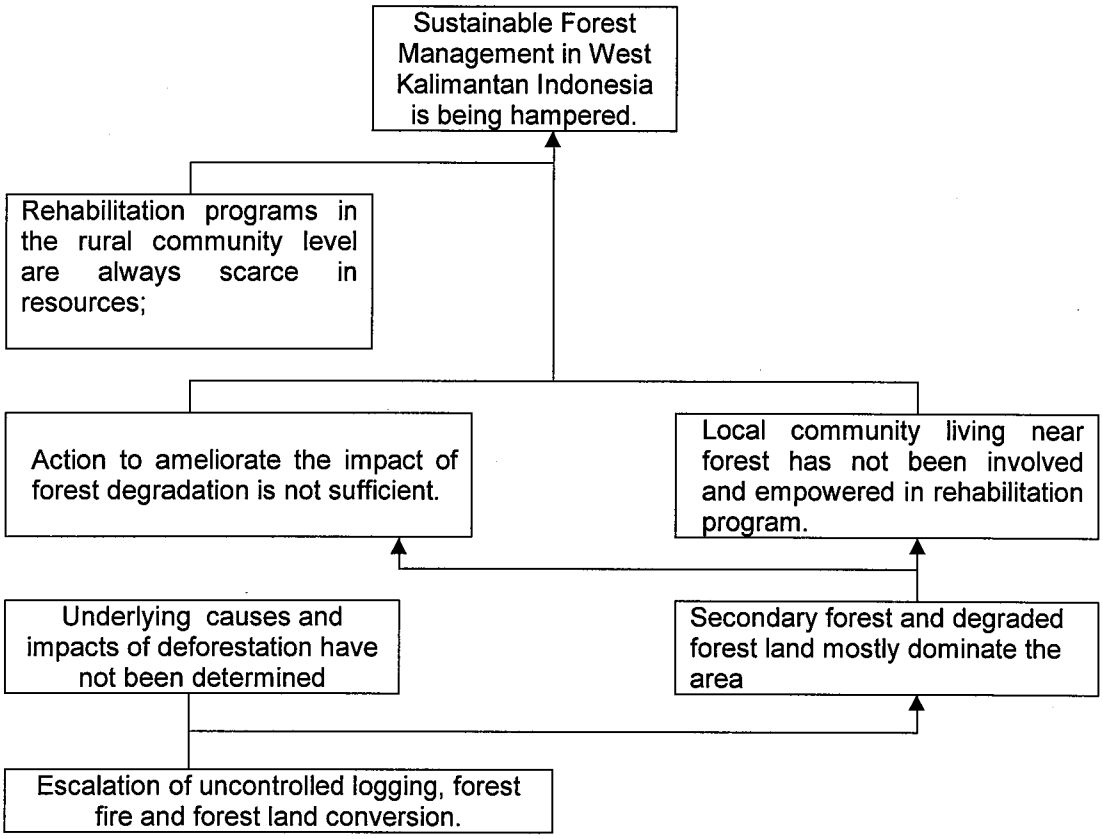


Figure 1. Problem Tree of Proposed Pre-Project

2.2. Reason for a Pre-Project

This pre-project proposal has selected to gather basic information concerning site conditions, demographic and social data, willingness of local community to participate in the rehabilitation program, including their prospective benefits and responsibilities. Necessary information is needed to evaluate the underlying causes and the impacts of deforestation. A pilot community-based participatory strategy for the ecological rehabilitation and socio-economic management of degraded forests in West Kalimantan will be developed.

So far, In Indonesia, methods applied in the forest restoration, management and rehabilitation in the secondary (degraded natural) forest is through enrichment planting also known as strip, gap or under-planting with indigenous species. In

many cases, however this method does not seem to be respected by ordinary people due to it is not well seen and understood. This enrichment planting technique has been long suggested as a method for assisted regeneration that can increase total tree volume and the economic value of forest through creating a high forest dominated by desirable species. It can also be useful technique to establish forest species which cannot grow on open plantations. Current forest plantation in the degraded forest land, such as block planting with exotic species has been conducted by private company in the form of industrial plantation forest concessionaire. Another technique in the form of agroforestry is the taungya system. However, a major pre-requisite for successful taungya is land hunger which is generally practiced in Java, the very populated island of Indonesia. In West Kalimantan such agroforestry model is not generally practised, except a kind of existing native fruit tree stand (*tembawang)* which represents a footprint of former shifting cultivation practices. Since there is no disturbance such as forest fire or illegal re-logging, the enrichment planting in the secondary and degraded (logged-over) natural forest, the forests will be sustainable. This technique will be adopted for the rehabilitation of secondary forest, whereas block planting will be used in the rehabilitation of degraded forest land.

Based on the ITTO Policy Development Series No.13 there are three sub-categories of degraded forest, namely : degraded primary forest; secondary forest; and degraded forest land. This pre-project proposal will be concerned on the rehabilitation strategy of secondary forest and degraded forest land, since the degraded primary forests have more or less been under recovery stage maintained by timber concessionaires. Besides that the last two sub-categories are now representing the most significant coverage of degraded forest. For future project sustainability, a project proposal will be developed to promote plantation establishment in degraded forest areas using indigenous species with the involvement of local people.

2.3 Target beneficiaries

The principal target beneficiary would be Indonesia and the provincial government of West Kalimantan, especially the local communities, which had been involved in the preparation and establishment of forest plantations. Private companies, other local communities and individuals who want to establish plantation in degraded forests starting to use the forest rehabilitation strategy and the techniques to be developed in this pre-project will also benefit. It will also facilitate the establishment of methods on how to involve local communities in reforestation programs and thus promote more involvement of other local communities as well as governmental and non-governmental organization.

Other target beneficiaries would be the producer countries of the ITTO who would benefit from the methods and technologies that would be developed. Consumer countries of the ITTO would also benefit if the result of the future proposed and implemented project is used to establish plantations and improve forest values in the region and other tropical countries.

2.4 Site and other relevant aspects

a) Site identification and analysis of the environment

The pre-project will identify the community-based participatory strategy for the ecological rehabilitation and socio-economic management of degraded forests in the moist low land ecological zones in West Kalimantan Province. The prospective site to be allocated as a pilot area of sustainable forest management

(SFM) will be in the zone around the upstream Landak and Sambas catchment areas since they have very high number of degraded forest reserves.

All secondary forests in this zone are indicated as foot-print of former logging, shifting cultivation practices and forest fires. This area is among the productive forest zone, the soil belong to the group of ultisol and is ideal for most of the forest zone crops including rubber trees. Rubber and other crops are very much evidence all over the humid tropic type and there is great demand for more farmland. Other crops apart from rubber usually planted by farmers in this zone are plantains cocoa, coffee, maize, and to lesser extent vegetables. These farming activities are largely restricted to subsistence agriculture. Oil palm plantations have been promoted which in many cases reduces the indigenous forest vegetation as habitat of wildlife and area for animal hunting.

The degraded forests consisting primarily of secondary forest and degraded forest land are currently characterized by the absence of adequate tree cover and the invasion of places with scrub and some with alang-alang grass (*Imperata cylindrica*). The forest degradation has led to environmental problem as indicated by flood and erosion and also loss of revenue to the state due to the limited availability of timber for industries and export, since there would be not enough logs as raw materials.

b) Social-economic aspects

Local people living in this proposed pre-project area is generally still in a subsistent condition, except for several retailers having also business on local resource products. The degradation of forest resource has led to the decrease of socio-economic aspect of local people. For them, which depend on the forest for subsistence needs and income, the degradation of the forest reduces its benefits. The local community primarily Dayak tribe, the indigenous people of Kalimantan, is apparently still expecting the sustainable forest as they used to live with. The involving communities selected in this project must be based on their previous involvement or experience in management of the forest area and their willingness to participate in this project.

To asses demands for improved management of tropical forest resources, past and potential use of natural forest or indigenous species, its maintenance and protection, and how much in terms of resources that communities are willing to commit for these improvements, will be necessary to be understood. Also how household perceive of the advantage and disadvantage of the degradation and rehabilitation of tropical forests must be sensitized on their desired options. Perception of communities and other stakeholders (local assembly / unit committee members, district officials, etc) will be considered. The perception and attitudes will be determined in number of stages, such as - through large group discussion as would be expected from feedback at the start-up workshop to assess socio-economic aspects, as follows ;

- Through interviews and observation, and feedback from focus group discussion and participatory data gathering exercises which will be conducted as part of the detailed field surveys. The surveys method - PRA methods - will involve the communities in detailed assessment of affect their livelihoods; the past situation compared with the present, prognosis for the future based on rate of deterioration; activities that degrade environment, role of residents and communities on degradation, sustainability and their own future, etc;
- Validation workshop with communities in the area on the results at the various stages of the pre-project where the communities involvement are sought;

- Objective formulation and pre-project implementation workshops. This will essentially determine what should be done - workshop discussion on what can be done; the role of external agents; the role of the communities themselves, etc. The details in these workshops would be designed so that they become the basis for charting the future sustainability of the degraded areas in the forest zone of Indonesia.

  In organizing the workshop, the project team will play the role of facilitator. Thus the team will arrange workshop discussions and utilize several participatory exercises to provide opportunities for communities and community groups including women to express their perception on degradation of forest areas and their rehabilitation and management. The team will also become sensitized to the knowledge and capabilities of farmers, share appropriate methods that the communities can use for their own appraisal, analysis, planning, action, monitoring and evaluation in the maintenance and protection of rehabilitated forests. Through such processes, the project team would gain a greater understanding of local community conditions before initiating any extension support activities.

c) Methodology in the model approaches for achieving the specific objectives

An accurate evaluation of site conditions before reforestation and also scientific understanding of the recovery process after degradation must be implemented for the successful reforestation programs. The evaluation of site conditions before planting both in the management of secondary forest and rehabilitation of degraded forest land will allow for the matching of appropriate species to site conditions and thus help to promote successful establishment of plantation. Determining the impact of degradation on ecosystem functions as well as scientific understanding of the process of recovery will allow for the development of management system that will be sustainable in terms of supply of both timber and non-timber forest product as well as in the conservation of biodiversity.

Involving local communities will equip them with the capacity to undertake further rehabilitation programs on their own volition and also motivate them to protect areas they have rehabilitated. The effort towards mobilization, participatory planning, and implementation of projects for individual communities would be undertaken under the leadership of community level organizations. Other support could possibly come from associations supported by district level non-governmental organizations with the requisite technical, communication and organization skills to supplement community inputs. The output will be mobilized and empowered communities ready to improve and maintain the management of forest with minimum external assistance.

Under the coordination of the pre-project management team the management strategy of secondary forest and rehabilitation approach of degraded forest land to be adopted (ITTO Guidelines) will be socio-cultural, economic-institutional, and ecological. Socio-cultural approach will be based on the analyses of existing use system, value system, community organization, cost/benefit sharing, rights to use / to process, empowerment, traditional knowledge, and equity (gender awareness). Economic- institutional approach will be based on causes of degradation, local-national interests, incentive system, organization, monitoring, and production/marketing of timber and other products. Whereas, ecological studies will be based on the analyses of landscape, site specific, productive / protective functions, water-soil-climate, biodiversity-habitat, traditional / appropriate technology, and resource optimization.

To implement the pre-project, the Participatory Rapid Appraisal (PRA) technique will be used to elicit response of the selected local communities on: (i) underlying causes of deforestation and degradation of forest near the communities, (ii) impact of degradation on the forest ecosystem as well as on the livelihood on the members of the community, and (iii) appropriate measures to be taken that will address the causes.

The PRA technique will again be used for future forest rehabilitation project sustainability in determining: (i) Indigenous species being used for the rehabilitation of degraded areas, especially species of Dipterocarpaceae (mostly meranti (*Shorea spp.*), including tengkawang – the ellipse-nut tree (*Shorea stenoptera*) and durian – the local fruit tree (*Durio sp.*), (ii) Appropriate methods being used to establish, protect and maintain plantation in the degraded areas based on the ITTO Guidelines for Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests for a pilot community-based participatory strategy.

3. Outputs

3.1 Specific Objective 1

To collect and analyze the necessary information needed to evaluate the underlying causes of deforestation and define an overall strategy based on the ITTO Guidelines for a pilot community-based participatory strategy for the ecological rehabilitation and socio-economic management of degraded forests in West Kalimantan.

Output 1.1 The underlying causes of deforestation including background information on past and current socio-economic and environmental condition, measures to be taken to address the causes of forest degradation analyzed and determined.

Output 1.2 A strategy for ecological rehabilitation and socio-economic management of degraded forests with active participation of local communities in West Kalimantan utilizing the ITTO Guidelines developed.

3.2 Specific Objective 2

To develop a comprehensive project proposal for the implementation of the forest rehabilitation strategy using indigenous species.

Output 2.1 Indigenous species being used for the rehabilitation of secondary and degraded forests, such as meranti (*Shorea spp.*), *Shorea stenoptera* (ellipse-nut tree), *Durio sp.* (local fruit tree) and other endemic species determined.

Output 2.2 A comprehensive project proposal following the ITTO format with detailed specification of all inputs and activities for implementing the proposed strategy and fully budgeted by component, activity and source developed.

4. Activities

4.1 Output 1.1 **The underlying causes of deforestation including background information on past and current socio-economic and environmental condition, measures to be taken to address the causes of forest degradation analyzed and determined.**

Activity 1.1.1 Socialization and selection of communities to partake in the proposed activities.

Activity 1.1.2 Analysis and determination of the underlying causes of deforestation including background information on past and current socio-economic and environmental impact on the related ecosystem, and measures to address them

4.2 Output 1.2 **A strategy for ecological rehabilitation and socio-economic management of degraded forests with active participation of local communities in West Kalimantan utilizing the ITTO Guidelines developed.**

Activity 1.2.1 Selection and classification of degraded and secondary forests based on ecological, socio/cultural and economic/institutional management.

Activity 1.2.2 Development of strategy for ecological rehabilitation and socio-economic management for a pilot community-based participatory approach.

4.3 Output 2.1 **Indigenous species used for the rehabilitation of secondary and degraded forests, such as meranti (*Shorea spp.), Shorea stenoptera* (ellipse-nut tree), *Durio sp.* (local fruit tree) and other endemic species determined.**

Activity 2.1.1 Survey and quantification of the potential indigenous species as planting materials

Activity 2.1.2 Determining the indigenous species in the implementation of rehabilitation strategy

4.4 Output 2.2 **A comprehensive project proposal following the ITTO format with detailed specification of all inputs and activities for implementing the proposed strategy and fully budgeted by component, activity and source developed.**

Activity 2.2.1 Discussing, producing and disseminating results of all activities made, including determination of pilot-project site for SFM.

Activity 2.2.2 Developing a comprehensive project proposal with detailed specification of all inputs and activities and fully budgeted by component, activity and source.

5. Work Plan

Output / Activities	Responsible Party	Pre-Project Work Plan (in 9 months)								
		1	2	3	4	5	6	7	8	9
Output 1.1 : The underlying causes of deforestation including background information on past and current socio-economic and environmental condition, measures to be taken to address the causes of forest degradation analyzed and determined.										
Activity 1.1.1 Socialization and selection of communities to partake in the proposed activities.	Dr. Herujono H.	■								
Activity 1.1.2 Analysis and determination of the underlying causes of deforestation including background information on past and current socio-economic and environmental impact on the related ecosystem, and measures to address them.	Dr. Syamsuni		■	■						
Output 1.2 : A strategy for ecological rehabilitation and socio-economic management of degraded forests with active participation of local communities in West Kalimantan utilizing the ITTO Guidelines developed.										
Activity 1.2.1 Selection and classification of degraded and secondary forests based on ecological, socio/cultural and economic/ institutional management.	Mr. M. Dirhamsyah			■						
Activity 1.2.2 Development of strategy for ecological rehabilitation and socio-economic management for a pilot community-based participatory approach.	Mr. Burhanuddin				■					
Output 2.1 : Indigenous species used for the rehabilitation of secondary and degraded forests, such as meranti (*Shorea spp.), Shorea stenoptera* (ellipse-nut tree), *Durio sp.* (local fruit tree) and other endemc species determined.										
Activity 2.1.1 Survey and quantify the potential indigenous species as planting material.	Mr. Sujoko					■				
Activity 2.1.2 Determining the indigenous species in the implementation of rehabilitation strategy.	- do -						■			
Output 2.2 : A comprehensive project proposal following the ITTO format with detailed specification of all inputs and activities for implementing the proposed strategy and fully budgeted by component, activity and source developed.										
Activity 2.2.1 Discussing, producing, and disseminating results of all activities made, including determination of pilot-project site for SFM.	Mr. Abner Pangaribuan							■	■	
Activity 2.2.2 Developing a comprehensive project proposal with detailed specification of all inputs and activities and fully budgeted by component, activity and source.	Dr. Herujono H.								■	■

6. Budget

6.1 Overall Pre-Project Budget by Activity

OUTPUT / ACTIVITIES + Non - activity Based Expenses	BUDGET COMPONENTS (US $)							
	10 Project Personal	20 Sub-contracts	30 Duty Travel	40 Capital Items	50 Consumable Items	60 Miscellaneous	Quarter Year	Grand Total
Output 1.1 : The underlying causes of deforestation including background information on past and current socio-economic and environmental condition, measures to be taken to address the causes of forest degradation analyzed and determined.								
Activity 1.1.1 Socialization and selection of communities to partake in the proposed activities	-	-	3,480 (E)	-	-	-	Q_1	3,480 (E)
Activity 1.1.2 Analysis and determination of the underlying causes of deforestation including background information on past and current socio-economic and environmental impact on the related ecosystem, and measures to address them.	3,400 (I)	-	5,135 (I)	-	-	900 (E)	Q_1	9,435 (I+E)
Subtotal 1	3,400 (I)		8,615 (I+E)	-	-	900 (E)	Q_1	12,915 (I+E)
Output 1.2 A strategy for ecological rehabilitation and socio-economic management of degraded forests with active participation of local communities in West Kalimantan utilizing the ITTO Guidelines developed.								
Activity 1.2.1 Selection and classification of degraded and secondary forests based on ecological, socio/cultural and economic/institutional management.	8,875 (I)		7,130 (I)	-	-	-	Q_1	16,005 (I)
Activity 1.2.2 Development of strategy for ecological rehabilitation and socio-economic management for a pilot community-based participatory approach.	960 (E)		2,400 (I)	950 (E)	-	-	Q_1	4,310 (I+E)
Subtotal 2	9,835 (I+E)		9,530 (I)	950 (E)	-	-	Q_1	20,315 (I+E)
Output 2.1 : Indigenous species used for the rehabilitation of secondary and degraded forests, such as meranti (*Shorea spp.)*, *Shorea stenoptera* (ellipse-nut tree), *Durio sp.* (local fruit tree) and other endemic species determined.								
Activity 2.1.1 Survey and quantify the potential indigenous species as planting material	1,200 (I)		1,770 (I)	-	-	900 (E)	Q_2 Q_3	3,870 (I+E)
Activity 2.1.2 Determining the indigenous species in the implementation of rehabilitation strategy	300 (I)		800 (I)	-	-	-	Q_2 Q_3	1,100 (I+E)
Subtotal 3	1,500 (I)		2,570 (I)	-	-	900 (E)	Q_2 Q_3	4,970 (I+E)

Output / Activities	BUDGET COMPONENTS (US $)							
	10 Project Personal	20 Sub-contracts	30 Duty Travel	40 Capital Items	50 Consumable Items	60 Miscellaneous	Quarter Year.	Grand Total
Output 2.2 : A comprehensive project proposal following the ITTO format with detailed specification of all inputs and activities for implementing the proposed strategy and fully budgeted by component, activity and source developed.								
Activity 2.2.1 Discussing, producing, and disseminating results of all activities made, including determination of pilot-project site for SFM.	3,700 (I)	-	2,900 (I)	-	-	900 (E)	Q_3	7,500 (I+E)
Activity 2.2.2 Developing a comprehensive project proposal with detailed specification of all inputs and activities and fully budgeted by component, activity and source.	1,200 (I)	-	3,900 (I)	-	-	-	Q_3	5,100 (I)
Subtotal 4	4,900 (I)	-	6,800 (I)	-	-	900 (E)	Q_3	12,600 (I+E)
NON ACTIVITY BASED EXPENSES								
(1) Fuel and utilities					1,350 (I)		Q_1 to Q_3	1,350 (I)
(2) Office Supplies					1,800 (I)		Q_1 to Q_3	1,800 (I)
Subtotal 5					3,150 (I)		Q_1 to Q_3	3,150 (I)
Subtotal (ITTO)	18,675	-	24,035	-	3,150	-		45,860
Subtotal (E. Agency)	960	-	3,480	950	-	2,700		8,090
Total	19,635	-	27,515	950	3,150	2,700	Q_1 to Q_3	53,950

(I) = contribution of the ITTO

(E) = contribution of executing agency / Government of Indonesia.

6.2 Consolidated Total And Quarterly Pre-Project Budget

	Budget Components	Pre-Project Budget (9 months)			
		Total (US$)	Quarter 1	Quarter 2	Quarter 3
10.	**Project Personal**				
	11. National Experts	2,500	-	-	2,500
	12. National Consultants	2,500	2,500	-	-
	13.1. Other labour	1,935	1,575	360	-
	13.2. Administrative Personal	3,600	1,200	1,200	1,200
	14. Fellowship and Training	2,100	-	900	1,200
	15. International experts	7,000	7,000	-	-
	16. International Consultant	-	-	-	-
	19. **Component Total**	**19,635**	**12,275**	**2,460**	**4,900**
20	**Sub Contract**				
	21. Subcontract	-	-	-	-
	29. **Component Total**	**-**	**-**	**-**	**-**
30.	**Duty Travel**				
	31. Daily subsistence allowance	22,745	11.505	4,640	6,600
	32. International travel	2,500	2,500	-	-
	33.1. Domestic air travel	400	200	-	200
	33.2. Local Transport costs	1,870	1,540	330	-
	39. **Component Total**	**27,515**	**15,745**	**4,970**	**6,800**
40.	**Capital Items**				
	41. Premises	-	-	-	-
	42. Land	-	-	-	-
	43. Vehicles	-	-	-	-
	44. Capital equipment (computer unit)	950	-	950	-
	49. **Component Total**	**950**	**-**	**950**	**-**
50.	**Consumable items**				
	51. Raw materials	-	-	-	-
	52. Spares	-	-	-	-
	53. Fuel and utilities	1,350	450	450	450
	54. Office supplies	1,800	600	600	600
	59. **Component Total**	**3,150**	**1,050**	**1,050**	**1,050**
60.	**Miscellaneous**				
	61. Sundry	-	-	-	-
	62. Auditing	-	-	-	-
	63. Contingency	2,700	900	900	900
	69. **Component Total**	**2,700**	**900**	**900**	**900**
70	**Executing Agency Management Cost**				
	71 Management costs (15%)	8,093	4,496	1,549	2,048
	79 **Component Total**	**8,093**	**4,496**	**1,549**	**2,048**
	Sub Total	**62,043**	**34,466**	**11,879**	**15,698**
80.	**ITTO Monitoring, Evaluation and Adm.**				
	81. Monitoring and Review Costs	3000			
	82. Evaluation Costs	-			
	83. Program Support/Adm.Costs (8%)	3,909			
	89. **Component Total**	**6,909**			
	GRAND TOTAL	**68,952**			

6.2.1. Consolidated Total Pre-Project Budget By Sources

6.2.1.1. Consolidated Total Pre-Project Budget By Source - ITTO

	Budget Components	Pre-Project Budget (9 months)			
		Total (US$)	Quarter 1	Quarter 2	Quarter 3
10.	**Project Personal**				
	11. National Experts	2,500	-	-	2,500
	12. National Consultants	2,500	2,500	-	-
	13.1. Other labour	1,575	1,575	-	-
	13.2. Administrative Personal	3,600	1,200	1,200	1,200
	14. Fellowship and Training	1,500	-	300	1,200
	15. International experts	7,000	7,000	-	-
	16. International Consultant	-	-	-	-
	19. **Component Total**	**18,675**	**12,275**	**1,500**	**4,900**
20	**Sub Contract**				
	21. Subcontract	-	-	-	-
	29. **Component Total**	**-**	-	-	**-**
30.	**Duty Travel**				
	31. Daily subsistence allowance	19,595	8,355	4,640	6,600
	32. International travel	2,500	2,500	-	-
	33.1. Domestic air travel	400	200	-	200
	33.2. Local Transport costs	1,540	1,210	330	-
	39. **Component Total**	**24,035**	**12,265**	**4,970**	**6,800**
40.	**Capital Items**				
	41. Premises	-	-	-	-
	42. Land	-	-	-	-
	43. Vehicles	-	-	-	-
	44. Capital equipment (computer unit)	-	-	-	-
	49. **Component Total**	**-**	**-**	**-**	**-**
50.	**Consumable items**				
	51. Raw materials	-	-	-	-
	52. Spares	-	-	-	-
	53. Fuel and utilities	1,350	450	450	450
	54. Office supplies	1,800	600	600	600
	59. **Component Total**	**3,150**	**1,050**	**1,050**	**1,050**
60.	**Miscellaneous**				
	61. Sundry	-	-	-	-
	62. Auditing	-	-	-	-
	63. Contingency	-	-	-	-
	69. **Component Total**	**-**	**-**	**-**	**-**
70	**Executing Agency Management Cost**				
	79. **Component Total**	**-**	**-**	**-**	**-**
80.	**ITTO Monitoring, Evaluation and Adm.**				
	81. Monitoring and Review Costs	3000			
	82. Evaluation Costs	-			
	83. Program Support/Adm.Costs (8%)	3,909			
	89. **Component Total**	**6,909**			
	GRAND TOTAL	**52,769**			

6.2.1.2. Consolidated Total Pre-Project Budget By Source - Exec. Agency

	Budget Components	Pre-Project Budget (9 months)			
		Total (US$)	Quarter 1	Quarter 2	Quarter 3
10.	**Project Personal**				
	11. National Experts	-	-	-	-
	12. National Consultants	-	-	-	-
	13.1. Other labour	360	-	360	-
	13.2. Administrative Personal	-	-	-	-
	14. Fellowship and Training	600	-	600	-
	15. International experts	-	-	-	-
	16. International Consultant	-	-	-	-
	19. **Component Total**	**960**	**-**	**960**	**-**
20	**Sub Contract**				
	21. Subcontract	-	-	-	-
	29. **Component Total**	**-**	-	-	**-**
30.	**Duty Travel**				
	31. Daily subsistence allowance	3,150	3,150	-	-
	32. International travel	-	-	-	-
	33.1. Domestic air travel	-	-	-	-
	33.2. Local Transport costs	330	330	-	-
	39. **Component Total**	**3,480**	**3,480**	**-**	**-**
40.	**Capital Items**				
	41. Premises	-	-	-	-
	42. Land	-	-	-	-
	43. Vehicles	-	-	-	-
	44. Capital equipment (computer unit)	950	-	950	-
	49. **Component Total**	**950**	**-**	**950**	**-**
50.	**Consumable items**				
	51. Raw materials	-	-	-	-
	52. Spares	-	-	-	-
	53. Fuel and utilities	-	-	-	-
	54. Office supplies	-	-	-	-
	59. **Component Total**	**-**	**-**	**-**	**-**
60.	**Miscellaneous**				
	61. Sundry	-	-	-	-
	62. Auditing	-	-	-	-
	63. Contingency	2,700	900	900	900
	69. **Component Total**	**2,700**	**900**	**900**	**900**
70	**Executing Agency Management Cost**				
	71 Management costs (15%)	8,093	4,496	1,549	2,048
	79 **Component Total**	**8,093**	**4,496**	**1,549**	**2,048**
	GRAND TOTAL	**16,183**	**8,876**	**4,359**	**2,948**

6.2.2. Summary of Pre-Project Budget By Sources

6.2.2.1 Summary of Pre-Project Budget By Source - ITTO

QUARTER DISBURSEMENTS BUDGET COMPONENTS	Pre-Project Budget (9 months)			
	Total (US$)	Quarter 1	Quarter 2	Quarter 3
10. Project Personnel	**18,675**	12,275	1,500	4,900
20. Sub Contracts	-	-	-	-
30. Duty Travel	**24,035**	12,265	4,970	6,800
40. Capital Items	-	-	-	-
50. Consumable Items	**3,150**	1,050	1,050	1,050
60. Miscellaneous	-	-	-	-
70. Executing Agency Management Cost	-	-	-	-
Subtotal 1	**45,860**	**25,590**	**7,520**	**12,750**
80. ITTO Monitoring and Adm.				
81. Monitoring and Review Cost	-			
82. Evaluation Costs	-			
83. Program Support / Adm. Costs (6%)	3,723			
Subtotal 2	**3,723**			
90. Refund of Pre-Project Costs	-			
ITTO Total	**49,583**			

6.2.2.2. Summary of Pre-Project Budget By Source - Executing Agency / GOI

QUARTER DISBURSEMENTS BUDGET COMPONENTS	Pre-Project Budget (9 months)			
	Total (US$)	Quarter 1	Quarter 2	Quarter 3
10. Project Personnel	**960**	-	960	-
20. Sub Contracts	-	-	-	-
30. Duty Travel	**3,480**	3,480	-	-
40. Capital Items	**950**	-	950	-
50. Consumable Items	-	-	-	-
60. Miscellaneous	**2,700**	900	900	900
70. Executing Agency Management Cost (15% of Total of Overall Project Budget by Activity)	**8,093**	4,496	1,549	2,048
Executing Agency/Govt. Total	**16,183**	**8,876**	**4,359**	**2,948**

6.3. Worksheet of Input Costing by Pre-Project Activity

Output and Activities	Inputs		Unit Cost (US$)	Quarter Year	Budget Component	Total Amount (US $)
	Unit & Quality	No.				
1	2	3	4	5	6	7
Output 1.1 : The underlying causes of deforestation including background information on past and current socio-economic and environmental condition, measures to be taken to address the causes of forest degradation analyzed and determined.						
Activity 1.1.1 Consultation, socialization and selection of communities to partake in the proposed activities.	1) OT – daily subsist. allowance for pre-project consultation and formulation in Jakarta	3	300	Q_1	31	900
	2) Man days - daily subsistence allowance for project personals to the field	30	50	Q_1	31	1,500
	3) Man days-daily subsistence allowance for local representative	30	25	Q_1	31	750
	4) Days – local transport cost/ rent Car	6	55	Q_1	33.2	330
Subtotal Activities 1.1.1						**3,480**
Activity 1.1.2 Analysis and determination of the underlying causes of deforestation including background information on past and current socio-economic and environmental impact on the related ecosystem, and measures to address them	1) Man month – national consultant in social forestry	1	2,500	Q_1	12	2,500
	2) Man days – daily subsistence allowance for consultant	15	60	Q_1	31	900
	3) Return domestic ticket	1	200	Q_1	33.1	200
	4) Man days – daily subs. allowance for project personals	45	50	Q_1	31	2,250
	5) Man days – daily subsistence allowance for local representatives	45	25	Q_1	31	1,125
	6) Days – local transport cost / rent car	12	55	Q_1	33.2	660
	7) Man days – other labours	60	15	Q_1	13.1	900
	8) Months – Monthly contingency	3	300	Q_1	63	900
Subtotal Activity 1.1.2						**9,435**

Output and Activities	Inputs		Unit Cost (US$)	Quarter Year	Budget Component	Total Amount (US $)
	Unit & Quality	No.				
1	2	3	4	5	6	7
Output 1.2 A strategy for ecological rehabilitation and socio-economic management of degraded forests with active participation of local communities in West Kalimantan utilizing the ITTO Guidelines developed.						
Activity 1.2.1 Selection and classification of degraded and secondary forests based on ecological, socio-cultural and economic/ institutional management.	1) Man month – international expert in forest genetic	1	7,000	Q_1	15	7,000
	2) Days – daily subsistence allowance for expert	18	60	Q_1	31	1,080
	3) Return international air travel	1	2,500	Q_1	32	2,500
	4) Man days – project personal`s daily subsist. Allowance	45	50	Q_1	31	2,250
	5) Man days - daily subsistence allowance for local representatives	30	25	Q_1	31	750
	6) Man days – other labours	45	15	Q_1	13.1	675
	7) Days – local transportation	10	55	Q_1	33.2	550
	8) Man months- other labor / Administrative personals	6	200	Q_1	13.2	1,200
Subtotal Activity 1.2.1						**16,005**
Activity 1.2.2 Development of strategy for ecological rehabilitation and socio-economic management for a pilot community-based participatory approach.	1) Days – discussion (fellowship)	4	150	Q_2	14	600
	2) Man days – project personal`s daily subs. allowance	36	50	Q_2	31	1,800
	3) Man days - daily subsistence allowance for local reprsenttatives	24	25	Q_2	31	600
	4) Man days – other labors (local communities)	24	15	Q_2	13.1	360
	5) Unit – computer and printer	1	950	Q_2	44	950
Subtotal Action 1.2.2						**4,310**

Output 2.1: Indigenous species used for the rehabilitation of secondary and degraded forests, such as meranti (*Shorea spp.)*, *Shorea stenoptera* (ellipse-nut tree), *Durio sp.* (local fruit tree) and other endemic species determined.						
Activity 2.1.1 Survey and quantify the potential indigenous species as planting material	1) Man days– daily subsistence allowance for project personals	18	50	Q_2	31	900
	2) Days– Local transport costs / rent car	6	55	Q_2	33.2	330
	3) Man days – daily subsistence allowance for local labors	36	15	Q_2	31	540
	4) Man months- other labour/ administrative personals	6	200	Q_2	13.2	1,200
	5) Months - contingency	3	300	Q_2	63	900
Subtotal Activity 2.1.1						**3,870**
Activity 2.1.2. Determining the indigenous species in the implementation of rehabilitation strategy	1) Man days – daily subsistence allowance for project personals	12	50	Q_2	31	600
	2) Man days–daily subsistence allowance for local representatives	8	25	Q_2	31	200
	3) Days – discussion (fellowship)	2	150	Q_2	14	300
Subtotal Activity 2.1.2						**1,100**
Output 2.2 : A comprehensive project proposal following the ITTO format with detailed specification of all inputs and activities for implementing the proposed strategy and fully budgeted by component, activity and source developed.						
Activity 2.2.1 Discussing, producing, and disseminating results of all activities made, including determination of pilot-project site for SFM.	1) Man month – national expert in forest management	1	2,500	Q_2 Q_3	11	2,500
	2) Days – daily subsistence allowance for expert	15	60	Q_2 Q_3	31	900
	3) Return ticket: Jakarta- Pontianak	1	200	Q_2 Q_3	33.1	200
	4) Man days – daily subsistence allowan-ce for project personals	24	50	Q_2 Q_3	31	1,200

	5) Man days – daily subsistence allowance for local representatives	24	25	Q_2 Q_3	31	600
	6) Days – discussion (fellowship)	8	150	Q_2 Q_3	14	1,200
	7) Months - contingency	3	300	Q_2 Q_3	63	900
Subtotal Activity 2.2.1						**7,500**
Activity 2.2.2 Developing a comprehensive project proposal with detailed specification of all inputs and activities and fully budgeted by component, activity and source.	1) Man days – daily subsistence allowance for project personals	60	50	Q_3	31	3,000
	2) OT – consultation and review in Jkt (dsa)	3	300	Q_3	31	900
	3) Man months- Other labour / administrative personals	6	200	Q_3	13.2	1,200
Subtotal Activity 2.2.2				Q_3		**5,100**
Non-Activity Based Expenses	1) Month - fuel and utilities	9	150	Q_3	53	1,350
	2) Month – Office supplies	9	200	Q_3	54	1,800
Subtotal Non-Activity Expenses				Q_3		**3,150**
TOTAL :				Q_1 – Q_3		**53,950**

Part III : OPERATIONAL ARRANGEMENTS

1. Management Structure

The pre-project would be executed by the Kapuas Watershed Management Agency of West Kalimantan, the Technical Unit of Directorate General of Land and Social Forestry, under active cooperation and collaboration with the Faculty of Forestry Tanjungpura University of Pontianak as an implementing agency.

The responsibilities of the institution are as follows:-

1) The Agency of Kapuas Watershed Management of West Kalimantan with the collaboration with Forestry Faculty will carry out the following activities :

   - Identification and design the pre-project sites in collaboration with local government;
   - Monitor all activities and compile progress reports;
   - Design training in collaboration with local communities;
   - Conduct of implementation all socio - economic activities
   - Organize and plan the targeted plantation with the collaboration of local communities;

2) The Forestry Faculty Tanjungpura University will carry out the following activities :

   - Design and conduct training of local communities in plantation establishment techniques;
   - Plan and determine targeted plantation with the collaboration of local communities;
   - Monitor all pre-project activities;
   - Compile progress reports and project proposal;
   - Organized all workshops.

For the management arrangement of the project it is also involved institutions with each respective functions.

3). Ministry of Forestry with the collaboration with Forestry Faculty will carry out thefollowing activities :

   - Providing advice on pre-project sites
   - Providing technical advice on targeted plantation establishment;
   - Providing advice on Implementation all socio-economic activities.

4) Local (Regency) Government with collaboration with Forestry Faculty will carry out :

   - Identification of communities to take part in pre-project;
   - Involve in the plantation establishment and maintenance by local communities.

An organization chart showing the project management can be seen in the following figure.

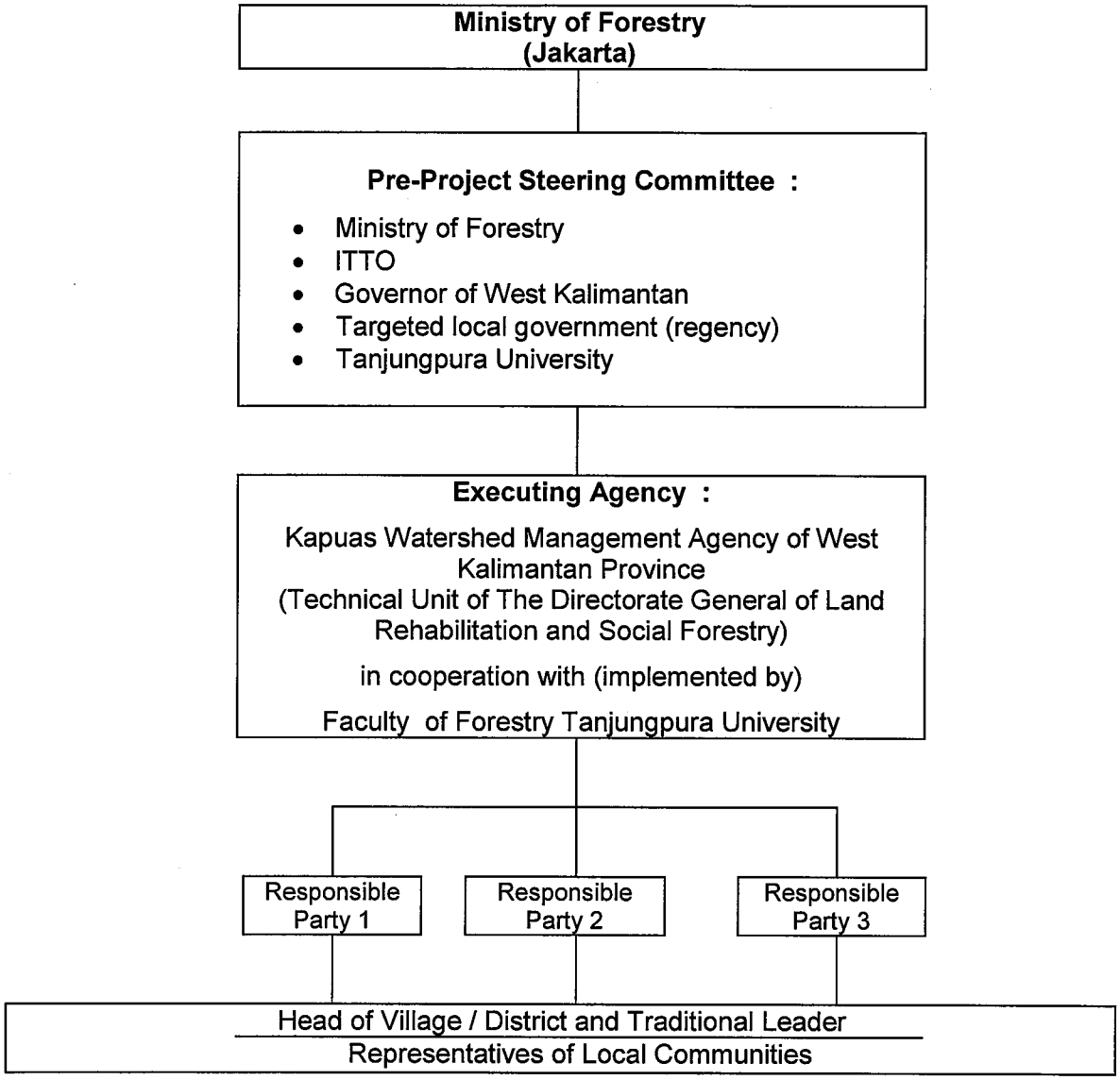


Figure 2. Pre-Project Organization Chart and Management Structure

2. Monitoring, Reporting and Evaluation

An evaluation team comprising the Pre-Project Leader, Head or officials of the institutions involved and nominees of the local communities will be formed. It is planned to evaluate, to assess the project overall orientation and organization and determine whether the project is achieving its objectives. Monitoring review will be carried out by the staff of the project every quarter. The exercise will be designed to identify problems and identify possible solutions.

3. Future operation and maintenance

The future project proposal on rehabilitation of degraded forest that will be established through the pre-project will be maintained by Kapuas Watershed Management Agency and Forestry Faculty - Tanjungpura University and its future operation with the collaboration with the local communities and advice from the Ministry of Forestry and local government level.

Forestry projects are essentially long term. However it is hoped that through the prospective project sustainability the project objectives will be achieved, but there will be future work which will focus on the following;

(i) capacity building of local communities to undertake maintenance and protection of their plantations;

(ii) increase the people participatory in improving the size of plantations;

(iii) transfer of knowledge from participation communities to non participating ones; and

(iv) facilitate the future economic benefit of products from the plantations.

PART IV : TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTA 1994 Objectives

This forest rehabilitation pre-project through local community participation would have compliance with the ITTO objectives as indicated in the following statements:

(i) it would provide an effective framework for cooperation and consultation on aspects of the tropical timber that are produced from plantation and managed logged-over forests;

(ii) It would also help research and development to improve forest management and use;

(iii) It will encourage tropical timber reforestation and forest management; and

(iv) It will encourage national policies which aim at sustainable use and conservation of our forest and genetic resources and at maintaining the ecological balance in Indonesia.

2. Compliance with ITTO Action Plan

This pre-project satisfies all ITTO Action Plan because

(I) It will lead to the future production and use of industrial tropical timber from forest plantations using enrichment planting and block planting through the development of local community capacity in forest establishment and protection;

(ii) the production of tropical timber from forest plantations will increase the volume of tropical timber and therefore this will yields benefits to the tropical country economy as a whole and therefore relevant to both producing and consuming countries;

(iii) hence it will also maintain and expand the international trade in tropical timber,

(iv) the areas to be used for the plantations would be degraded forest and therefore it offers reasonable prospect for positive economic return and ecologically sustainable natural resources. It will make maximum use of existing research institutions and avoid duplication of efforts to the maximum extent.

ANNEXES

Annex A. PROFILE OF THE EXECUTING AGENCY

1. The expertise of the Executing Agency

   The institution's primary function is to promote the increase forest sustainability and efficient utilization of the nation's forest resources. The proposed pre-project is strongly consistent with the institution primary obligation and it will be needed for further project proposal formulation. The concurrence the Forestry Faculty of Tanjungpura University has been sought for the release of personnel for the project and in the efforts to promote the sustainable forests in the country and conservation of the natural resources which have been destructed by the escalation of illegal logging, forest fire and conversion.

   Several projects or studies conducted in the last couple years include :

   1) Field Technical Implementation Planning of Landak Watershed Management in West Kalimantan, 2002.
   2) Post Fire Evaluation and Management on Peat Forest Lands, 2001.
   3) The Impact of Forest Fire on Soil Water Regime under pine plantation of Nanga Pinoh in West Kalimantan, 1999.
   4) Strategic Planning on Management and Protection along the Forested Border Area between Indonesian - Malaysia in West Kalimantan, 2001.
   5). The Effect of *Mycorrhiza arbuscula (CMA)* on the Growth of *Gmelina arborea* Seedling on Ultisol Soil Type, 2001.

2. The infrastructure and facilities :

   Administrational and working space is available in the office building of the executing agency. The concurrence the implementing agency has laboratory facilities within the Faculty and University. The facilities consist of, among others, Silviculture Lab, Tissue Culture, Soil Lab, and Plant pest and disease Lab

3. Budget

   The executing agency related budget is always included in the annual national budget. For each forest rehabilitation project has its own project head and team which include personnel, sub-contract, duty travel etc.

4. Personnel

   1). Experts or consultants will be included in this pre-project. Expert or consultant consists of International expert and National expert / consultant primarily persons with specialty in Forest Genetic, Social Forestry and Forest Management.

   2) Key Staff (6 personnel + other related staffs) for pre-project implementation, i.e :

      1. Dr. Herujono Hadisuparto (Forest Soil / Forest Ecology)
      2. Ir. Sudjoko Setyo Purnomo (Forest Economic / Forest Management)
      3. Ir. Abner Pangaribuan (Forest Protection)
      4. Dr. Syamsuni Arman (Social Forestry)
      5. Ir. M. Dirhamsyah, MS (Forest Product)
      6. Ir. Burhanuddin, MS (Silviculture / Forest Rehabilitation)
      7. Official of Ministry of Forestry (to be determined).
      8. Local representatives (Local communities, Liaison officer of Regency / Kab. Pontianak).

5. Terms of reference of Expert and Consultant

There will be needed in this pre-project one international expert, two national expert and consultant with each qualification as follows :

- An international expert needed should familiar with the ITTO project cycle and be able to assist and suggest towards the rehabilitation strategy and model for the development of a comprehensive project proposal. The expert should have English speaking and writing ability, be willing to work for selection / classification of site and development of methods for ecological and socio-economic forest plantation in the area, and having expertise primarily in forest genetic and or silviculture.

- A national expert being included should also familiar with the ITTO project cycle, be able to assist the development of model on community based project. The national expert is willing to work in assisting the analysis and determination of the underlying causes of deforestation including background information on past and current socio-economic and environmental impact on the related ecosystem. The expert must be fluent in English in oral and writing, and having specialty in social forestry.

- A national consultant needed should at least familiar with the ITTO project cycle, He or she must be able to assist in the discussion or fellowship and in the preparation of a report of all activities towards the development of a comprehensive project proposal including determination of pilot-project for sustainable forest management. The consultant must be fluent in English in oral and writing, willing to work with a scheduled program, and having specialty in forest management.

Annex B

CURRICULUM VITAE

B 1. CURRICULUM VITAE – 1 (Project Formulator) :

Full Name : Dr. Herujono Hadisuparto
Date of birth : 24 December 1948
Place of birth : Yogyakarta
Country of birth : Indonesia
Present Address : Faculty of Forestry - Tanjungpura University.
Pontianak, West Kalimantan, Indonesia. Telp./ Fax. 0561-764153
Present Position : Senior Lecturer (Professor)
Faculty of Forestry - Tanjungpura University

Education :
- *Doctor of Philosophy* (Ph.D.) Dissertation on: Soil Science and Forest Hydrology, *University of Kentucky*, USA, 1985-1988
- *Master of Science* (M.Sc.) in Forestry, *University of Kentucky*, USA, 1983-1985
- Sarjana (Ir.) in *Forest Management (Tropical Silviculture)*, Bogor Agricultural University (affiliation), 1972-1976.

Working Experiences :

1. Professor of Faculty of Forestry, Tanjungpura University.
2. Dean of Faculty of Forestry, Tanjungpura University, Pontianak – West Kalimantan.
3. Scientific adviser of Indonesian Forest Community, 1993 - 1998.
4. Indonesian Counterpart on "Pollution Monitoring and Control (PMC) Unit of West Kalimantan and North Sumatra, 1993 - 1995.

Selected Researches / publications (from 1995) :

1. The Effect of Timber Harvesting and Forest Conversion on Peat Swam Forest Dynamics and Environment in West Kalimantan. In Tropical Rainforest Research-Current Issues. D.S. Edwards, W.E. Booth and S.C Choy (Eds). Kluwer Academic Publishers. Dordrecht/ Boston/ London; 1996.
2. In-situ Ramin (*Gonystylus bancanus Kurz*) Conservation in West Kalimantan; a Case-Study of Sungai Bakau Besar Darat Forest Ecosystem (*in Indonesian*). Forest Research and Development Agency in collaboration with Tanjungpura University; 1996/1997.
3. Physical and Chemical Properties of Rhizospheric Soil with and without mycorhiza under the Regeneration Shorea Forest in West Kalimantan. Ecological Approach for Productivity and Sustainability of Dipterocarp Forest Proc. Faculty of Forestry-Gajahmada University and Kansai Engineering Center; 1998.
4. Post Fire Evaluation and Management on Peat Forest Lands. Proc. International Workshop on Forest Fire Control and Suppression Aspects. Bogor; 1999.

5. The Impact of Forest Fire on Soil Water Regime under pine plantation of Nanga Pinoh in West Kalimantan. Proc. Int'l Symposium on Asian Tropical Forest Management. Samarinda; 1999.
6. Strategic Planning on Management and Protection Along The Forested Border Between Indonesian - Malaysia in Kalimantan, 2001.

B 2. CURRICULUM VITAE - 2

Full Name	:	Ir.Sudjoko Setyo Purnomo
Date of birth	:	19 May 1954
Place of birth	:	Bojonegoro (East Java)
Country of birth	:	Indonesia
Present Address	:	Agency of Kapuas Watershed Management Pontianak, West Kalimantan, Indonesia.
Present Position	:	Head of Kapuas Watershed Management Agency
Education	:	• Sarjana (Graduate) in Forest Economic Faculty of Forestry Gajahmada University , Yogyakarta 1981.

Working Experiences :

1. Land Rehabilitation Sub-Unit of East Timor, 1991-1995
2. Land Rehabilitation Sub-Unit of Citandui Watershed, West Java. 1995-1999
3. Land Rehabilitation Unit of Sampara Sout East Sulawesi, 1999-2002
4. Kapuas Watershed Management Agency, Technical Implementing Unit of The Directorate General of Land Rehabilitation and Social Forestry of West Kalimantan, 2002-present.

Researches / publications :

1. Environmental Impact Assessment of Social Forestry Development Project in Sanggau Regency of West Kalimantan, 2002.
2. Field Technical Implementation Planning of Landak Watershed Management in West Kalimantan, 2002.
3. Development of Meranti Seed Stand in Ketapang Regency of West Kalimantan, 2002.

B 3. CURRICULUM VITAE - 3

Full Name	:	Ir. Abner Pangaribuan
Date of birth	:	16 September 1950
Place of birth	:	Medan
Country of birth	:	Indonesia
Present Address	:	Provincial Forest Service of West Kalimantan Indonesia.
Present Position	:	Head of Forest Rehabilitation and Reclamation Division Provincial Forest Service of West Kalimantan Indonesia.

Education : • Sarjana (Graduate) in Forest Management, Faculty of Forestry Bogor Agricultural University, Bogor, 1976.
• Master of Management in Management, University of Krinadwipayana, Jakarta, 2000.

Working Experiences :

1. Natural Resources Division of Provincial Forest Service of North Sumatera, 1983 - 1992.
2. Forest Rehabilitation and Land Reclamation of The Office of Ministry of Forestry of Maluku, 1992 - 1994.
3. Natural Resources Division of The Office of Ministry Forestry of West Kalimantan, 1994 - 2001.
4. Forest Rehabilitation and Land Reclamation Division Provincial Forest Service of West Kalimantan Indonesia. 2001 - present.

Researches / publications :

1. Management Planning of Logged - Over Forest in West Kalimantan, 2001.
2. Environmental impact assessment of social forestry development project in Sanggau Regency of West Kalimantan, 2002.
3. Evaluation on The Forest Rehabilitation Program in West Kalimantan, 2002.

B 4. CURRICULUM VITAE - 4

Full Name	:	Prof. Syamsuni Arman, Ph.D
Date of birth	:	17 March 1937
Place of birth	:	Sampit, Central Kalimantan
Country of birth	:	Indonesia
Present Address	:	Faculty of Social and Political - Tanjungpura University Pontianak, West Kalimantan, Indonesia.
Present Position	:	Senior Lecturer (Professor) Social and Political - Tanjungpura University

Education : • *Doctor of Philosophy* (Ph.D.) Dissertation in: Anthropology / Human Ecology, Rutgers State University of New Jersey, USA, 1987.
• *Master of Art* (MA) in Anthropology / Human Ecology, Rutgers State University of New Jersey, USA, 1982.
• Sarjana (Drs.) in Administration, Tanjungpura University, Pontianak, 1978.

Working Experiences :

1. Summer Course Lecturer, Rutgers University of New Jersey, 1982 - 1984.
2. Lecturer at Tanjungpura University, 1977 - present.
3. Visiting Fellow, Inti College Sarawak, Malaysia 2001.

Selected Researches / publications (from 1995) :

1. Socioeconomic Profile of Plasma Farmer at PTP Nusantara XIII Kembayan District, Survey resport is sponsored by JICA and BAPPENAS, 1997.
2. Study of Bentuang Karimun National Park Kapuas Hulu, The ITTO Borneo Diversity Expedition 1997 - Betung Kerihun National Park and Lanjak Entimau Wildlife Sanctuary, ITTO, 1997.
3. Socioeconomic Study of Batang Ai National Park Sarawak Malaysia, The ITTO Borneo Diversity Expedition 1997 - Betung Kerihun National Park and Lanjak Entimau Wildlife Sanctuary, 1998.
4. Wet Rice Cultivation in Sengah Temila, Pontianak, JICA and BAPPENAS, 1998.
5. Trans Boundary Movement of People Material and Goods between West Kalimantan Indonesia and Sarawak, Tanjungpura University, 2001.

Conferences and Seminars :

1. Speaker and organizer at The Borneo Research Council; Kuching 1990, Sabah 1992, Pontianak 1994, Brunei 1996, Kuching 2000, Sabah 2002.
2. Speaker on fruit marketing at New York Botanical Garden, 1991.
3. Paper on drug abuse at National Conference on Drug Abuse, Jakarta, 1997;
4. Speaker at National Conference on Human Rights, 1998.
5. Presenting Paper on Social Forestry at National Seminar on Indonesian Culture, 2003.

B 5. CURRICULUM VITAE - 5

Full Name	:	Ir. M. Dirhamsyah, MP
Date of birth	:	21 June 1963
Place of birth	:	Pontianak, West Kalimantan
Country of birth	:	Indonesia
Present Address	:	Faculty of Forestry - Tanjungpura University Pontianak, West Kalimantan, Indonesia.
Present Position	:	Lecturer Faculty of Forestry - Tanjungpura University.
Education	:	• Master of Agriculture (MP), in Wood Technology, Gajahmada University, Yogyakarta, 1995. • Sarjana (Ir.) in Forest Product Technology, Tanjungpura University, 1988.

Working Experiences :

1. Lecturer at Faculty of Forestry, Tanjungpura University.
2. Vice Dean I. at Faculty of Forestry, Tanjungpura University, 2001 - present.

Selected Researches / publications (from 1995) :

1. Management model of shifting cultivation in the Bukit Baka - Bukit Raya National Park, 1997.
2. Wood preservation on Red Meranti Veneer Product, 1997.

3. The effect of Creosol preservative on Physical and Chemical Properties of Several Commercial, 1998.
4. Management Planning of Logged - Over Forest in Pontianak Regency, 2001.
5. Strategic Planning on Management and Protection along The Forested Border Between Indonesian - Malaysia in Kalimantan, 2001.

B 6. CURRICULUM VITAE - 6

Full Name	:	Ir. M. Burhanuddin, MP
Date of birth	:	14 November 1959
Place of birth	:	Merabuan
Country of birth	:	Indonesia
Present Address	:	Faculty of Forestry - Tanjungpura University Pontianak, West Kalimantan, Indonesia.
Present Position	:	Lecturer Faculty of Forestry - Tanjungpura University.
Education	:	• Master of Agriculture (MP), in Silviculture at Gajahmada University, Yogyakarta, 2001. • Sarjana (Ir.) in Forest Management at Tanjungpura University, 1986.

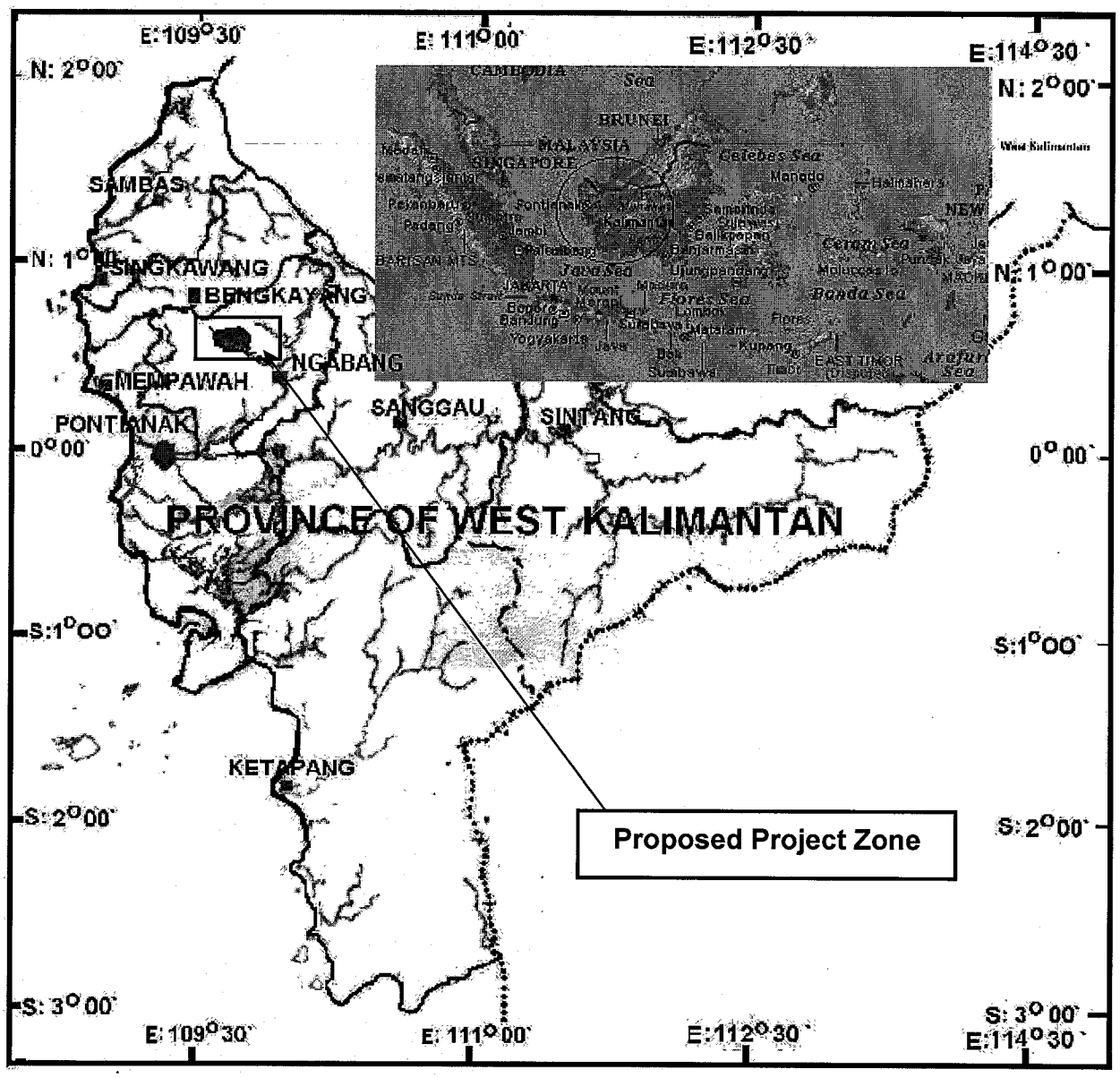
Working Experiences :

1. Lecturer at Faculty of Forestry, Tanjungpura University.
2. Chairman of Forest Management Department, Faculty of Forestry, Tanjungpura University, 2001 - present.

Researches / publications (from 1995) :

1. The Function of *Mycorrhiza arbuscula (CMA)* on the Growth of *Gmelina arborea* Seedling on Ultisol Soil Type, 2001.
2. The Effect of Stem Cut Dimension of Laban (*Vitex pubbescen*) seedling in nursery, 1986.
3. Management Planning of Logged - Over Forest in Pontianak Regency, 2001.
4. Strategic Planning on Management and Protection along The Forested Border Between Indonesian - Malaysia in Kalimantan, 2001.

Annex C. Map Of The Pre-Project Location



Annex D.

Revision as recommended by the 28th Expert Panel

Topic of recommendation	Description of recommendation	Description of revision / modification	Addressed on text :
Specific objective	Reformulate the specific objectives in accordance with recommendation of the previous Panel	- It is reformulated including specific objective 1 and 2, where output and activity adjusting accordingly.	- Part II, point 1.2 ; points 3.1 and 3.2, at the underlined sentence.
Exotic species in the trial planting	Clarify inclusion of exotic species in the trial planting as the concern of the project is basically indigenous species as evidenced by the project title	- It has not had trial planting in this pre-project yet. It is stated the use of exotic species basically was describing the current condition of forest plantation using block planting in the degraded forest land. - In this pre-project the proposed use indigenous species is stated in the text including in the output 2.1 & its activities.	- Part II point 2.2 second paragraph - Part II point 2.4. c) in the last paragraph; and point 4.3, output 2.1, and activities 2.1.1 and 2.1.2
International expert	Include consultation with an international expert familiar with the ITTO project cycle and adjust the budget accordingly	It is included on Annex A concerning Profile of Executing Agency and also shown in the consolidated total budget and budget worksheet	Part II point 6.2 & 6.3 Worksheet of Input Costing by Activity, and in Annex A point 4.1) Personnel
Terms of reference	Include terms of reference for every consultant and expert to be paid with ITTO funds	It is included in the Profile of Executing Agency	In Annex A point 5.
Budget by source	Include tables on Consolidated Total Pre-project the Budget by source	Tables of Consolidated Total Budget by sources are included following the Consolidated Total Pre-project budget.	Part II points /table 6.2.1.1 (ITTO) & 6.2.1.2 (Exec..Agency)
Representative of local communities	Include representative of local communities in the manag. structure of the pre-project	It is included in the lower box of the management structure / organization chart, in the Operational Arrangements	Part III concerning Operational Arrangement at Figure 2.

Note : Revisions were underlined in the text.