INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT DOCUMENT

TITLE	THE PREVENTION OF FURTHER LOSS AND THE PROMOTION OF REHABILIATION AND PLANTATION OF *GONVSTYLUS SPP.* (RAMIN) IN SUMATERA AND KALIMANTAN
SERIAL NUMBER	PD 426/06 Rev.1 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF INDONESIA
ORIGINAL LANGUAGE	ENGLISH

SUMMARY

Gonystylus bancanus (Ramin) is one of the most valuable timber species in Indonesia. The growing stock of this species, based on the pre-project findings, has drastically decreased in the last several years and its habitat rehabilitation and field plantation are progressing slowly. The causes are many. The significant reduction of growing stocks is mainly due to over exploitation, unsustainable methods of its harvesting and insufficient natural regeneration. On the other hand the slow progressing in habitat rehabilitation and plantation are due to lack of seed sources, lack of high quality seedlings and lack of incentive scheme for planting ramin. The project, therefore, is aimed to contribute to the sustainable management of ramin forests by conducting several activities directed to prevent further loss of ramin and to promote rehabilitation of its habitat and population and field plantation. Specific objectives of the project are 1) To improve silvicultural techniques for ramin conservation and plantation developments and 2) To enhance institutional capacity to implement CITES rules and procedures. The Outputs are: 1) Propagation of high quality planting materials; 2) The development of field plantation technique; (3) Institutional and human resources capacity building on CITES implementation and 4) Improv ed existing rules and regulation for ramin conservation and plantation including harvest. protocols.

EXECUTING AGENCY	FORESTRY RESEARCH AND DEVELOPMENT AGENCY (FORDA), MINISTRY OF FORESTRY (MOF)IN COLLABORATION WITH REGIONAL FORESTRY RESEARCH CENTRE (SUMATRA AND KALIMANTAN)
COOPERATING GOVERNMENTS	
DURATION	36 MONTHS
APPROXIMATE STARTING DATE	TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE

Source	Contribution in US$	Local Currency Equivalent
ITTO	**507,903**	
Gov't of Indonesia (direct & in-kind)	174,639	
TOTAL	682,542	

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PREAMBLE

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PART I: CONTEXT

1. Origin

This proposed project is a follow up action of the pre-project findings on the identification of *Gonystylus spp (Ramin)* potency, distribution, conservation and plantation barriers (ITTO PPD87/03 Rev.2 (F) conducted in 2005, which is very crucial to be taken in order to save ramin from further loss and to restore ramin to their previous condition. By these actions, it is expected that the recovery of ramin is enhanced and the role of ramin as an important timber species to the national economy and community welfare also recovers.

Table 1. Peat swamp forest area estimated at different time periods

No.	Province	Directorate of Forestry Planning 1983 (x1000 ha)	Forestry Planning Agency 2002 (x1000 ha)	Estimated standing stocks in five provinces in 1995-2004 (Directorate of Forestry Planning, MoF) (x1000 m3)			
				95/96	98/99	2001	2004
1. Sumatra		3,304	2,517				
	Riau	2,222	1,657	2,430	1,307	1,410	11,4
	Jambi	397	524	844	482	2,036	13,0
	South Sumatra	684	335	589	285	1,866	N/a
2. Kalimantan		9,376	6,277*				
	West Kal	3,731	2,052	1,675	1,368	120	29,2
	Central Kal	5,491	4,225	5,435	4,214	593	1,066
	South Kal	154	N/a	N/a	N/a	N/a	N/a
3. Central Sulawesi		486	N/a	N/a	N/a	N/a	N/a
4. Maluku		166	N/a	N/a	N/a	N/a	N/a
Total		13,333,					

* Exclude South Kalimantan

Some of the main pre-project findings are as follows:

1. The standing stock of ramin has drastically decreased to only 6.8 % or approximately 14 millions cu m left compared to the earlier prediction. This figure was based on the assumption that habitat degradation has been achieving 46 % and allocated area for conservation achieves 30% (Bismarck *et al* 2005, A Technical Report No. 1). Table 1 shows the great reduction of ramin habitat and log production from 1995 through 2004.

2. The causes of the drastic reduction of ramin growing stock are due to unsustainable methods of ramin harvesting, severe illegal logging activities throughout ramin habitats in Sumatra and Kalimantan, slow progress in rehabilitation and plantation of ramin and insufficient natural regeneration.

3. The unsustainable ramin harvest is also worsened by the poor implementation of cutting and trade regulation as required by Appendix III of CITES (and now Appendix II).

4. The slow progress in rehabilitation is partially due to the lack of seeds and other planting materials used for both enrichment planting and artificial plantation. Lack of seed and seedling materials are mainly due to lack of data and information on seed sources, such as seed stand, seed production areas and seed orchard.

5. Poor land use planning also contributes to the loss of ramin habitats and poor progress in rehabilitation and plantation. To date, there has not been determined the specific sites to be allocated for ramin rehabilitation and or plantation. This has led to be easily converted of ramin habitat (peat swamp forests) to other use. An example of this is Mega Rice Project in Central Kalimantan, that has caused the lost of nearly one million hectares of ramin habitat.

6. Natural disaster, especially forest fire, has also contributed to the rapid loss of ramin population and ramin habitat. The peat swamp forest fires frequently occur during the dry season. In Central Kalimantan, fires are mostly ignited by the extreme dry of peat swamp forests caused by the drop of ground water surface. The drop of ground water surface is caused by canalization established for log transportation (Technical Report No. 2).

The moratorium policy on ramin in 2001 and listing in CITES Appendix III (up listed into Appendix II in 2004) have been expected to reduce the rate of ramin habitat and population degradation. However, more necessary actions need to be taken in order to promote the recovery of ramin habitat and growing stocks. The pre-project finding indicated that illegal logging and illegal trade of ramin are still taking place not only in forest production areas but also in most conservation areas, such as National Park and Nature Reserves both in Sumatra and Kalimantan. Ramin timbers from Indonesia are exported to Malaysia, Singapore, China, Hongkong, Taiwan, Japan, Korea and some European countries (i.e Germany, Italy, Spain).

This proposed project, therefore, is aimed at achieving the main objectives: (1) to promote the conservation of ramin through plantation and institutional capacity building and (2) to prevent further loss and degradation of ramin habitat and population through effective CITES implementation, especially through institutional and human resources capacity building. These two main objectives are in line with the priority actions set by the Ministry of Forestry, especially in combating illegal logging and promoting forest rehabilitation/plantation and conservation. The proposal by Ministry of Forestry to include ramin in CITES Appendix III and up-listed into Appendix II is one of the Indonesian Government commitments to save and sustainably manage its tropical forests. The commitment has also been marked by the launching of the National Movement for Land and Forest Rehabilitation throughout the country for the period of five years.

Results of stakeholders consultation and National Workshop on ramin held in Bogor, 28 September 2005 and 22 February 2006 concluded that in order to promote the success of rehabilitation and plantation of ramin, substantial efforts need to be provided beginning with the establishment of land use planning for ramin, identification of seed sources and technology development for plant propagation to ensure sufficient supply for ramin planting materials. CITES implementation is also urged to be implemented as a mean to reduce illegal logging and illegal trade. Decision 2(XXXVII): 'enhanced cooperation between ITTO and CITES for ramin and mahagony' has also supported CITES implementation on ramin which includes aspects of ramin forest management, silviculture and capacity building.

Tri-National Task Force Meeting between Indonesia, Malaysia and Singapore, recently held in Jakarta, 12-13 April 2006 has also recommended the CITES implementation through institutional and human resources capacity building.

2. Sectoral Policies

There are two major sectoral policies relevant to the proposed project. The first policy is related to ramin logging moratorium throughout the country issued in 2001. This was a response to the fact that severe degradation of ramin habitats and the reduction of ramin growing stocks are still taking places. This policy is directed to prevent further extraction of ramin from the remaining forests and to enable the habitats to recover. Based on the moratorium policy, there is only one certified forest concessionaire is allowed to harvest ramin, PT. Diamond Raya Timber, which operates logging activity in an area of approximately 88,000 ha of peat swamp forest in Riau province, Sumatra. The total peat swamp forest area in Indonesia is approximately 8.8 million hectares (recalculated from data provided by Agency of Forestry Planning, Ministry of Forestry, 2002).

The above policy has contributed to the enlisting of this species in CITES Appendix III in almost at the same time (2001). Three years later, at the end of 2004, ramin was up-listed from Appendix III to Appendix II. The inclusion of ramin into CITES Appendix III, and then Appendix II has brought to some consequences in ramin cutting and trade regulations. According to the pre-project

findings, the implementation of CITES on ramin, as well as other listed species, still bears some barriers. Some of the barriers are lack of institutional and human resource capacity, especially in the implementation of cutting and trade regulation. This has contributed to the continuity of ramin forest degradation.

The high rate of deforestation accounted for over 1.6 millions ha per year or even more (The Nature Conservancy, not dated), including in peat swamp forest has also led to the second policy which is highly related to the priority programs of the Ministry of Forestry for the short to medium terms. Three of those priority programs relevant to this proposed project are combating illegal logging and revitalization of forest industry, rehabilitation/plantation and conservation within the period of five years. Those priority programs are aimed to ensure the sustainable forest management, community welfare and environments. These could only be achieved through the recovery of forest habitat and sustainable supply of ramin timbers. In this context revitalization of forest industry, rehabilitation/plantation could also mean to enhance the recovery of growing stock for which ramin is definitely a valuable timber species to be selected for that purpose.

3. Programs and Operational Activities

The five priority programs of Ministry of Forestry have been translated into the wide range of programs and activities. One of them is the National movement for Land and Forest rehabilitation (Gerakan Nasional Rehabilitasi Hutan dan Lahan-GNRHL) which is derived from one of those priority programs: promotion of forest/land rehabilitation and conservation. The target of the movement is three million hectares forest and land rehabilitated within the period of five years or approximately 300,000 hectares of forest and land rehabilitated per year. Even though, this movement seems to be too ambitious, this is one of the commitments showed by the Government toward the sustainable tropical forest management in Indonesia and to fulfill the obligatory requirement for community prosperity and global conventions.

The fulfillment of community prosperity is the ultimate goal of forest resource utilization, to be the maximum for the community welfare through the sustainable way of utilization. In order to have sustainable way of utilization, the rehabilitation of the degraded forest is essential to be carried out. The Indonesian state law also states that rehabilitation is aimed at restoring, maintaining and improving forest functions and must be carried out on the basis of local specific condition. (Article 42).

In achieving the project outputs, especially in conducting field plantation trials, the project has explored the potential collaboration with several institutions: Regional Forestry Research Center of Sumatra (Palembang), PT Diamond Raya Timber (Riau), PT. Inhutani II (West Kalimantan), University of Tanjung Pura (West Kalimantan) and WWF-Indonesia Sebangau Conservation Project, Central Kalimantan. Some of them have provided letter of intent (see Annex). These institutions are managing some ramin sites and mostly located in nearby ramin natural population. They have also some experience working with ramin conservation, plantation and propagation. These institutions will specifically take part in identifying easily managed ramin population (stands) in each respective area, identifying good and highly accessible seed sources, collecting seeds, seedlings and vegetative materials, developing technology for producing high quality planting materials and conducting field plantation trials in the specific and secure site. Detail activities in each site will be determined based on the pre-project findings including the secure sites for field plantation trials and method of seedling collection involving local people in Central Kalimantan. Some seed sources have also been identified in Jambi and in the concession areas of PT. Diamond Raya Timber, Riau.

PART II: THE PROJECT

1. Project Objectives

1.1. Development Objective

This project is a necessary follow-up of the pre-project findings on ramin potency, distribution, conservation and plantation barriers. The development objective of this project is to contribute to the prevention of further loss and to ensure the sustainable forest management of *Gonystylus bancanus* (ramin) in Indonesia.

1.2. Specific Objectives

Specific objective 1: **To improve silvicultural techniques for ramin conservation and plantation developments**

Specific objective 2: **To enhance institutional capacity to implement CITES rules and procedures.**

2. Justification

2.1. Problems to be addressed

Several problems on ramin have been identified during the pre-project. Below are some of them addressed in this proposed project.

(1) Ramin timber supply is decreasing significantly in last 20 years. This has caused closed down some ramin wood industries in Indonesia. From the pre-project findings, it is indicated that the constant decrease of ramin timbers is due to the substantial lost of ramin habitat and degradation of existing population. The current standing stock is estimated only 6.8% from previous prediction in 1983 or approximately 14 millions cubic meters in 2005 (Bismark *et al* (2005). The reduction in ramin growing stock is caused mostly by over exploitation compared to the growth rate of ramin forest, poor CITES implementation, insufficient natural regeneration, even zero regeneration in severely degraded habitat and lack of artificial plantation.

(2) Over exploitation in ramin forest is caused by at least three inter link different human activities, such as illegal logging, poor implementation on cutting and trade regulation issued and poor implementation of CITES Appendix III and II requirement. Illegal logging has caused great reduction in ramin growing stock (including regeneration potentials) in Sumatra and Kalimantan not only in production forests (taking place mostly in abandon forest concessions) but also in conservation areas, such as National Parks and Nature Reserves (i.e. Berbak National Park of Sumatra and Tanjung Putting and Sebangau National Park of Kalimantan).

The illegal logging is directly and indirectly related to the poor implementation of issued cutting and trade regulation on ramin. Since 2001, Government has issued several regulations related to ramin harvest, such as temporary ban for ramin logging. This species has also been listed in CITES Appendix III in the same year and up-listed into Appendix II in late 2004. However, the CITES implementation is still facing several problems, especially those related to the institutional and human resources capacity. Some institutions such as provincial forest services, customs, Ministry of Trade and Industry have some difficulties in CITES implementation, especially in wood identification, documentation and issuance of permit. Lack of coordination between responsible institutions and lack of trained individuals at various

check points have also caused poor CITES implementation.

(3) The decrease in ramin growing stock is also caused by the slow growing of ramin species, lack of regeneration potential and lack of successful artificial regeneration. Based on the pre-project finding, ramin diameter growth rate is less than 0.4 cm/year. This is far below the assumption of current silvicutural system (Indonesian Selective cutting of diameter limit and Philippine selective cutting) which put the assumption of diameter growth rate of 1 cm/year.

Other problem related to the decrease in ramin growing stock is related to the poor natural regeneration and artificial plantation. The seed sources have not been well documented their location, production capacity and status. Furthermore, the flowering-fruiting of ramin does not occur yearly. Ramin produces flowers/fruits in 4-5 years interval and the seeds are recalcitrant which have short longevity. The viability of ramin seeds greatly reduces for several days and the viability is zero after over one week. The seed characteristic has caused some difficulties in providing ramin planting materials, especially from nursery grown seedlings. Wildings could be collected from ramin mature trees, but the number is also insufficient. The technology of ramin vegetative propagation has been developed but still faces some limitation in field plantation.

(4) Ramin habitats have also been severely decreased due to land conversion, peat swamp forest fires and inappropriate logging system. The major ramin habitat conversion occurred in late 1990s. One millions hectare of peat swamp forests in Central Kalimantan has been converted into rice field called a Mega Rice Project in Central Kalimantan, which has caused over more than one million hectares of peat swamp forest diminished. Ramin population is leading to extinction and predicted to be permanently disappears in this ex-Mega Rice Project.
Other conversion includes conversion for Industrial Plantation Forest (HTI) and other uses.
Peat swamp forest fire is also another problem faced for ramin forest management. The fires mostly occur during the dry season caused by both human activities and natural disaster. Land clearing for shifting cultivation and oil palm plantation contributes to peat swamp forest fire that occurs during the dry season.

(5) Inappropriate silvicultural practices have also contributed to the decrease of ramin growing stock and population, especially in the maintenance of residual stands of ramin after logging operation. According to the existing silvicultural prescription, the residual stand maintenance must be carried out within the period of 5 - 6 years after logging operation. The maintenance includes enrichment planting, refining etc. In fact, within 5-6 years after logging operation all access facilities in the ex-logging compartment have been deteriorated and therefore the location is no longer accessible causing almost no maintenance to the residual stands.

(6) Plantation technologies for ramin have not been readily applicable. Vegetative propagation, including tissue culture has not been available to be applied in the field. High quality genetic materials, such as plus tree clone which shows faster growing trait has not been identified and collected. This slow progress in developing technology for ramin plantation is also caused by the lack of incentive scheme to plant slow growing species like ramin.

Ramin is one of the valuable timber species that grow naturally in natural forest. Because of its high value, ramin is one of the most wanted timbers in the country with poor law enforcement on rules and regulations by the responsible parties related to its protection, conservation harvest and trade. The illegal harvest and poor law enforcement have caused serious threat and problems to its sustainability, however, not all of the problems could be incorporated in this project due to its irrelevancy and possibility to be covered by the project. Therefore, only those relevance to the proposed project are highlighted in the problem tree (Figure 1) and incorporated in project activities. Other project such as FLEGT has accommodated the problem related to trade and illegal harvest.

Figure 1. Problem Tree

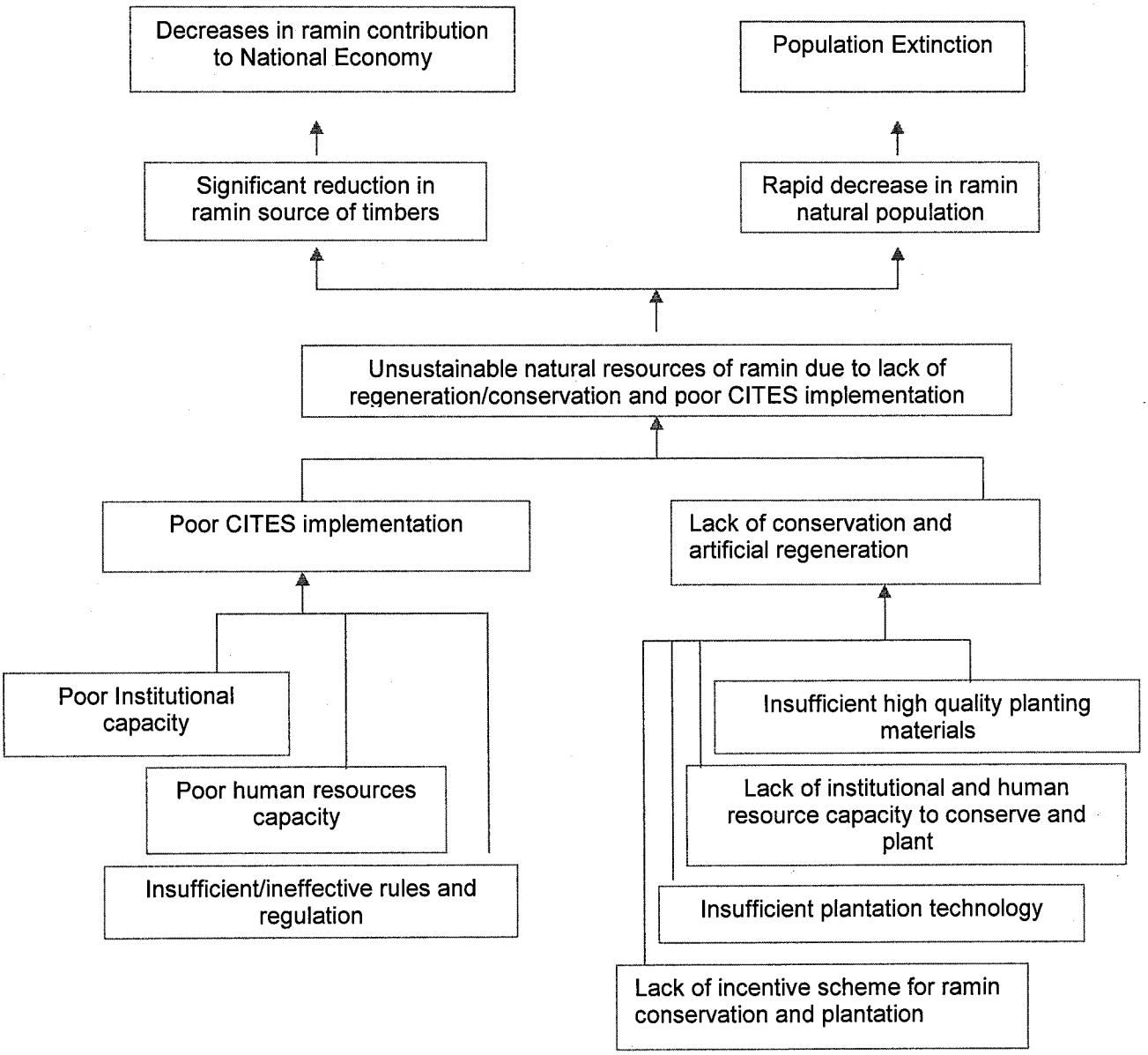
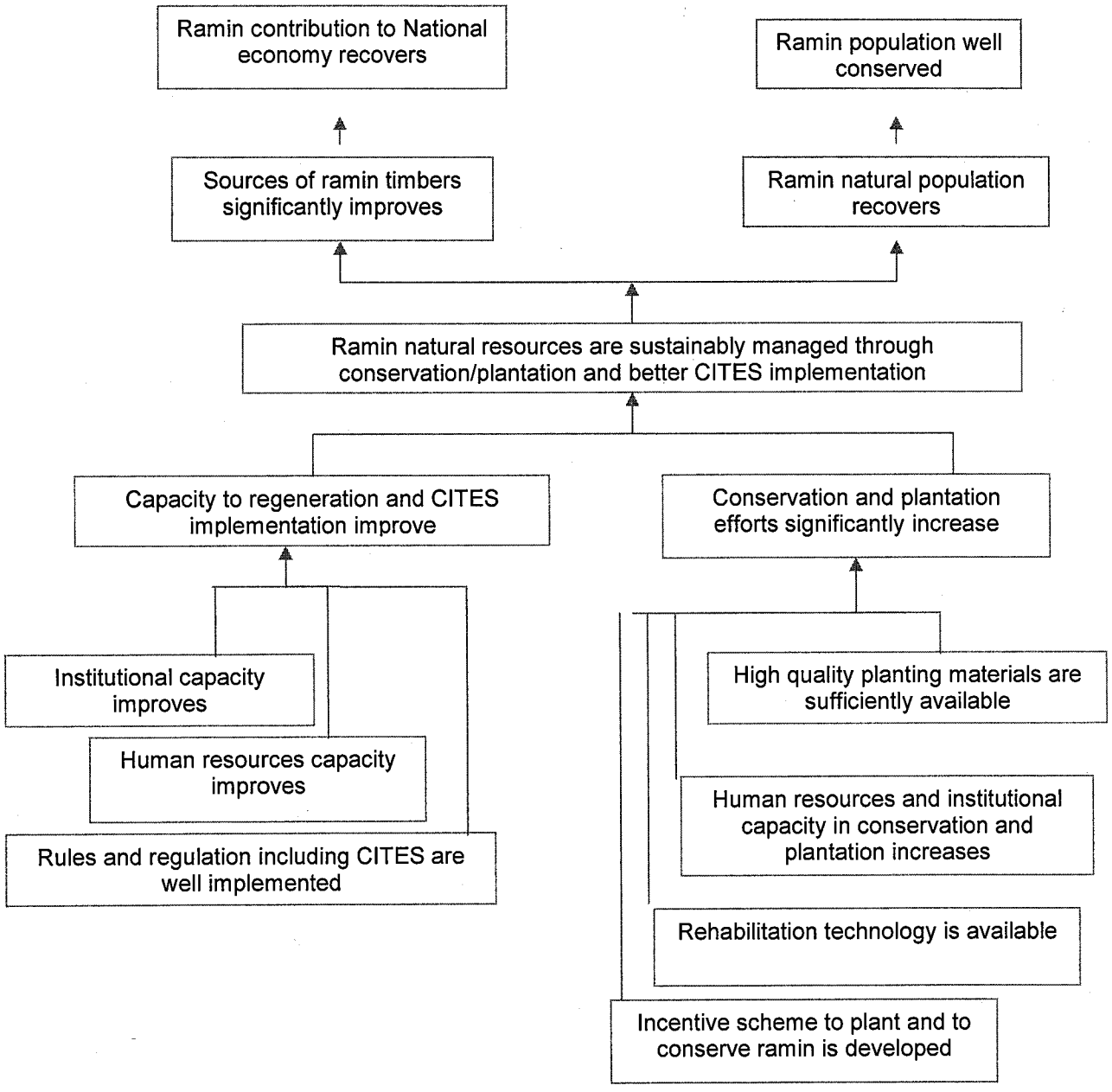


Figure 2. The objective tree



2.2. Intended situation after project completion

The situation expected upon the completion of this project is the reversal of the current situation. The first is to promote conservation of ramin through plantation and institutional capacity building, which consists of several expected outputs to be achieved during the first phase of the project: (1) developing propagation technology to produce high quality planting materials, (2) developing plantation technology to obtain the best technique to establish ramin plantation, (3) improving institutional and human resources capacity in CITES implementation and (4) improving existing and newly formulated rules and regulation for ramin conservation and plantation including ramin harvest protocols. Information on seed sources for ramin still need further verification, especially their present status. Propagation technology, especially for nursery raised seedlings from seeds, wilding and tissue culture are also needed to be further developed into a larger scale. To date, there are no clear sites or sources where sufficient and viable seeds could be collected both in Sumatra and Kalimantan. Ramin produces flowers and fruit irregularly and therefore seeds are available only in its interval flowering/fruiting. Pre-project findings indicate some initial steps have been carried out to promote vegetative propagation on ramin but still lack of information on the field transplanting success.

The second objective that could be expected from the second phase of the project is to carry out larger scale rehabilitation (plantation) trials as a follow up to the previous phase and to prepare more effective measure to prevent further loss of ramin population and habitats through (1) combating illegal logging activities and promoting land use management for ramin and other uses to avoid further conversion of ramin habitat (2) promoting the implementation of improved harvest protocols (methods) of ramin to ensure natural regeneration and recovery are taking place in the harvested area. This also includes the improvement of residual stand management through enrichment planting. The above situations are expected to be clearly achieved during the project phase and action to solve any existing problems could be partially or fully delivered. The existing data and information obtained during the pre-project have been valuable for utilization.

By the above mentioned activities, it is expected that ramin species will recover from scarcity or extinction and in the long run logging moratorium policy could be lifted. Ramin timber production resumes both volume and quality. Ramin-based wood industry will recover and black market of illegal ramin timber gradually decreases. Tax and foreign exchange earnings originating from ramin related industries will increase contributing to the increase of welfare of a segment of community involved in forest management activities and industry.

2.3. Project Strategy

One of the means toward the solutions of ramin problems identified in the previous section is an integrated approach between the promotion of plantation and harvest (trade) regulation (Figure 3). The specific objective in first phase of the project will focus on providing the solution on the plantation problems and institutional and human resource capacity on CITES implementation. The second phase will focus on the implementation of larger field plantation trials (application of the found technologies to produce larger number of high quality planting materials for rehabilitation) and the prevention of further loss of ramin habitat and remaining population through more effective ramin conservation.

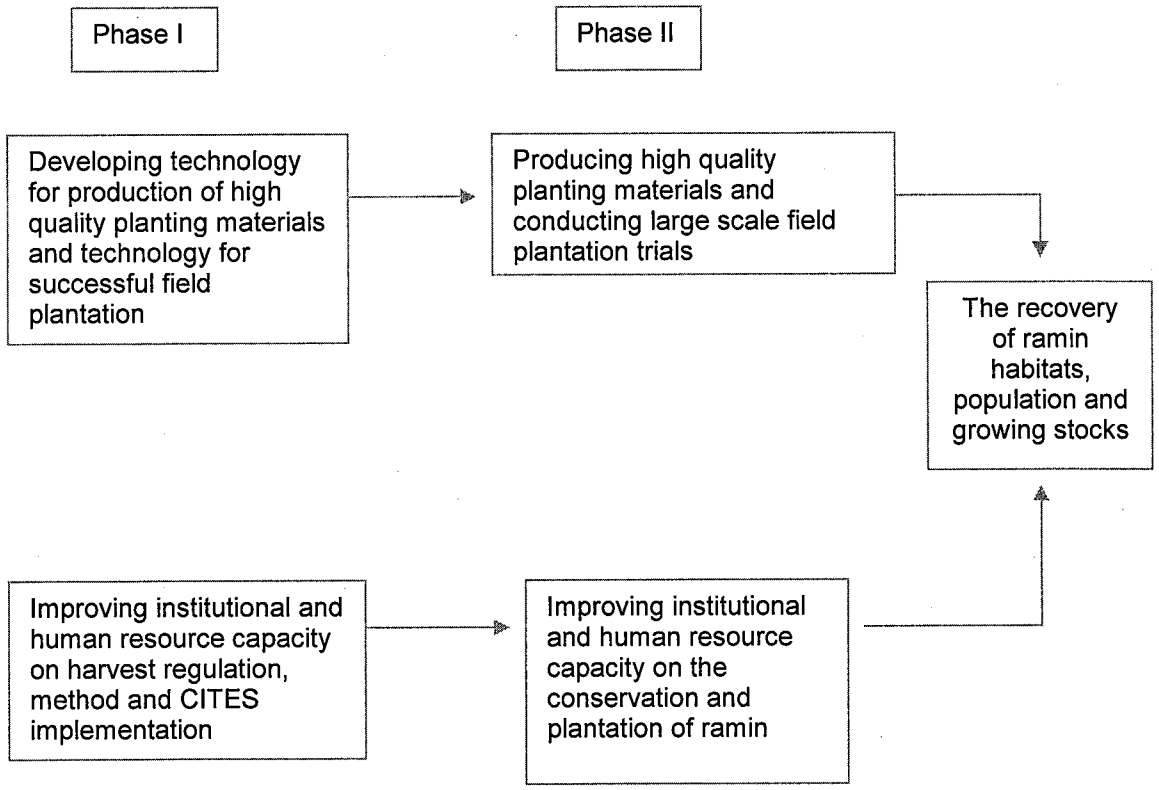
The plantation problem which is mainly due to lack of high quality planting materials will be overcame through the promotion of technology for seedling propagation both from seeds and vegetative materials. Promotion of seedling propagation from seeds will begin with the identification of seed sources (site, area, number of stem, potential seed production etc), flowering and fruiting (phenology), seed handling (collection and storage) and germination. The promotion of technology for seedling propagation from vegetative materials will be explored for tissue culture (in vitro), stem and leaf cutting. Wilding (seedling from natural regeneration) will also be collected for seed production and stem or leaf cutting. Current sources of seeds and seedling of ramin are mostly from wild stands (old stand or logged over area). No specific seed stands and seed orchards are recorded in the pre-projects.

Small scale, but representative plantation trials will also be carried out in several sites in Sumatra and Kalimantan.

Problem regarding the weak and poor implementation of ramin harvest and trade, especially on logging moratorium policy and CITES, institutional and human resources capacity will be improved through workshop and training (Figure 3). Results of ITTO Expert Meeting in Kuala Lumpur May 2006 have indicated some common problems on CITES implementation. However, to ensure the real needs of training, the training needs identification will be carried out, followed by workshop and training.

The above approach is based on the Pre-project results and will involve various experienced institutions and companies, such as Regional Forestry Research Center of South Sumatra and South Kalimantan, PT Inhutani II (West Kalimantan), University of Tanjungpura (West Kalimantan), WWF Indonesia-Sebangau Conservation Project and PT. Diamond Raya Timber (Riau-Sumatra). Specific to the CITES implementation and the formulation of rules and regulation on ramin conservation, Directorate of biodiversity conservation (especially Sub directorate of CITES) of DG of Forest Protection and Nature Conservation will involve in the project. The project will establish cooperation with these institutions to promote technology on the seedling propagation by utilizing and promoting the existing technique.

Figure 3. Diagram of project strategy to achieve the development objective



2.4. Target Beneficiaries

The target beneficiaries of this project include:

1. State-owned Forest Company (i.e. PT. Inhutani II, West Kalimantan)
2. Private-owned companies (i.e. PT. Diamond Raya Timber, PT. Yos Raya Timber, PT. Putra Duta Indah wood).
3. Provincial and District Forest Services of Sumatra and Kalimantan
4. Ministry of Forestry (FORDA, DG Forest Production Management, DG Forest Protection and Conservation and DG Land Rehabilitation and Social Forestry)
5. Indonesian Institute of Science (LIPI)
6. Universities (Bogor Agricultural University, University of Tanjungpura and Palangkaraya)
7. Non-Government Organization (NGO-WWF-Indonesia, Wetland International)

The benefits of the project to be obtained include:

1. The latest data and information on the seed sources throughout the country.
2. The latest information on the seedling and vegetative propagation techniques on ramin.
3. The latest information on plantation technology, especially silvicultural treatment, site manipulation etc.
4. The increased institutional and human resources capacity on ramin harvest, trade and regulation and plantation.
5. The increased institutional and human resources capacity on CITES implementation.
6. Current status of plantation activity on ramin.

The benefits from this project are disseminated through various types of publications, seminar, workshops and other types of communication, such as a serial meeting between interested individuals.

2.5. Technical and scientific aspects

Ramin growing habitat is in peat swamp forest. Peat swamp forest is characterized by the wet soil habitat. This is in contrast to other tropical rain forest sites and totally different from mangrove which covered permanently by water. The wet surface of peat swamp forest caused the cruising in the peat swamp forest is relatively difficult compared to other forest lands. During the relatively dry season, the organic matters that cover most forest floors are clearly seen with various thicknesses. In some parts in Central Kalimantan, the peat is about 8-12 m thick. This characteristic requires extra effort for cruising and traveling toward the deep of the forest stands. **However, some preliminary observations by various agencies (i.e. Forestry Research and Development Agency, Universities, private-state owned companies and Indonesian Institute of Science (LIPI) on the biology, ecology of peat swamp forest and silviculture of ramin have been valuable for the proposed project activities.**

The studies include the regeneration ecology (patterns) of ramin in primary and secondary forests, newly logged over area in production forests which are mostly managed by state-

owned and private companies. Trials on the enrichment planting of ramin in logged over area have also been conducted. From the pre-project results, it is indicated that there is a high potential of natural regeneration of ramin in non forest fire attacked areas. Artificial plantation of ramin have also been conducted in several sites by Regional Forestry Research Center of South Sumatra and Kalimantan. This also includes various trials on seedling propagation using seeds, vegetative materials, the application of fertilizer and mycorrhiza to seedling growth. However, the success of propagation technology of seedlings from seeds and vegetative materials need to be further developed in order to carry out mass production, especially for the high genetic quality materials (Pre-project technical reports No. 3 and 4).

Other than developing technology for seedling propagations, the information on seed sources is critical important. Based on pre-project finding, to date there is not even one designated seed sources of ramin, either seed stands or seed production areas, except some seed stand in PT. Diamond Raya Timber of Riau Sumatra. Seeds and wild seedlings and vegetative materials are mostly collected from wild stands in the production forest (Concession areas). Therefore, in this proposed project, identification of seed sources of ramin will also be collected in both Sumatra and Kalimantan both in production forest and conservation areas and will be proposed to be designated seed sources of ramin. The Establishment of ramin seed orchard / seed stand is technically possible. The seed sources identification will be started with the existing information collected and documented earlier by Directorate of Seed and Nurseries, DG of Land Rehabilitation and Social Forestry (MoF).

2.6. Economic aspect

Ramin is one of the highly valuable timber in Indonesia growing in peat swamp forest in Sumatra and Kalimantan. The ramin timber is used for various furniture products and other wood based products such as dowels, moulding etc. Ramin timbers from Indonesia are exported mostly to Singapore and Malaysia and then re-exported to other Asian countries, America and Europe. Since, the wood is commercially valuable, the trade of this wood has provided substantial contribution to the country economic growth directly through tax income and indirectly through the establishment of various industry and employment opportunity. The latest price of ramin timber is worth more than US$ 500 per cu m (Traffic SEA, 2005) and ramin moulding is over US$ 600/cu m.

According to trade statistics (as cited by Traffic SEA, 2005), since 1970 until 1990s, Indonesia regularly exported ramin timbers more than 500,000 cu m per year. The export dropped substantially to 23,000 c m in 1998 and less than 8,000 c m in 2002. The reduction of ramin production has caused closing down of some ramin industries and loss of job opportunities. By the promotion of ramin habitat recovery and population establishment, the economic value of ramin will recover and the community prosperity will directly and indirectly improve. **Similar to the social impact, the project will have positive impact to local communities in the form of employment opportunities during the project implementation. Economic impact will also be realized after the recovery of ramin production (ramin forest) that will enable wood industries to develop and the development will promote the provision of job opportunities that in turn will promote community prosperity.**

2.7. Environmental aspect

This project will provide substantial contribution to the environment. The recovery of peat swamp forests will contribute to the reduction of fires in peat swamp forests during the dry season and smoke from the fires that occur almost yearly in Sumatra and Kalimantan and have suffered some neighboring countries like Malaysia and Singapore. The rehabilitation of habitats through artificial plantation will provide enormous contribution to the recovery of vegetation in peat swamp forest, especially those of non-drought resistant species. The de-canalization activity, blocking of water canals will contribute to the ascending of existing ground water surface. The higher ground water surface will reduce the chance of under ground forest fires which is the most difficult to be extinguished in peat swamp forests. WWFI, Sebangau Conservation project and Wetland

International have initiated the establishment of canal blocking in Kalimantan. This activity will contribute to the proposed project, especially on the access to location.

2.8. Social Aspects

Ramin habitat is located in peat swamp forest which has least accessible compared to other sites. This condition has caused not many people (community) establish their homes for daily living in this area, even though some sources of income are obtained from peat swamp forest area such as fire wood. Community living surrounding peat swamp forest area mostly involve in logging activities, enrichment planting and other restoration activities. The community prosperity is provided and promoted through their involvement in ramin wood industry, such as sawmill and other mills to produce some other finished products (moulding, dowels, joints etc). The reduction in wood industries beginning with the lack of logging activities could cause the reduction in community prosperity. Poverty has contributed to the illegal activity in peat swamp forests, such as illegal logging, canalization and conversion to other and agricultural uses. **This project will have positive impact to local community by direct involvement some of local community in the project during operational activities, such as field survey on seed sources identification, raising seedling in nurseries and field plantation trials. Long term impact to local community will be in the form of employment opportunities after the recovery of ramin production in logging activities, sawmills and other ramin wood industries.**

2.9. Risks

Except funding discontinuation, interruption and peat swamp forest fire, there is no potential risk that may seriously affect the implementation of this project. Government has committed to restore ramin habitat throughout the country and promote ramin sustainable management. The frequent peat swamp forest fire will decrease by improving community participation, raising awareness and de-canalization programs. Related institutions are expected to be willing to participate, especially in the institutional and human resources capacity building.

To reduce risk of fires in the field plantation trials, several approaches will be taken (1) identifying and taking the most accessible sites (i.e. Research Forest of University Tanjung Pura Central Kalimantan, Research stations of Regional Forestry Research Centers in Sumatra and Kalimantan and PT. Inhutani II (Pontianak, West Kalimantan), (2) the establishment of Co-operation with local community and local government on fire prevention, (3) the establishment of green (fire) belts along the site in cooperation with Provincial Forest Services and National Park (i.e. Berbak National Park). These approaches will also be synchronized with the existing plantation program, especially on National Movement for Forest and Land Rehabilitation (GN-RHL).

3. Outputs

Specific objective 1: To improve silvicultural techniques for ramin conservation and plantation developments

Output 1.1 : Propagation of high quality planting materials.

Output 1.2 : The development of field plantation technique

Specific objective 2: To enhance institutional capacity to implement CITES rules and procedures

Output 2.1 : Institutional and human resources capacity building on CITES implementation

Output 2.2 : Improved existing rules and regulation for ramin conservation and plantation including harvest protocols.

4. Activities

Output 1.1 : Propagation of high quality planting materials.

Activity 1.1.1 To identify ramin seed sources

Various seed sources of ramin will be identified in ramin natural habitat in Sumatra (Riau and Jambi) and Kalimantan (production forest and conservation area in West and Central Kalimantan). The types of seed sources are: seed trees, seed stand, seed production areas and seed orchard.

Activity 1.1.2 To identify ramin genetic variation using molecular markers

Genetic variation between population and within population will be identified using molecular marker. Good and easily managed ramin population in Sumatra and Kalimantan will be evaluated to detect the level of genetic diversity, genetic distance and growing trait.

Activity 1.1.3 To identify seedling propagation technique

Methods of seed collection, seed handling, storage, germination and nursery technique will be developed to produce large quantity and high quality seedlings. Seeds of ramin are recalcitrant and seed production is mostly in small quantity.

Activity 1.1.4 To identify vegetative propagation technique

Vegetative materials are the only sources of planting materials to be developed when no seeds are available to be collected in no fruiting season. Some existing techniques will be further developed such as tissue culture, stem and other cutting in lab and field scale.

Output 1.2 : The development of field plantation technique

Activity 1.2.1 To identify appropriate seedling treatments

Ramin at seedling stage grows relatively faster and at the transition stage from seedling to sapling stage (shade tolerant to intolerant) grow relatively slow. Various treatments will be applied to maintain the growth and survival rate and to promote growth rate after transplanting from nursery to the field sites.

Activity 1.2.2 To identify site requirement for growing

Several site conditions in peat soil will be observed and identified for ramin growing. This includes identification of thickness, physical and chemical properties of peat soil, natural associated species and light intensity.

Activity 1.2.3 To identify appropriate plantation technique

The manipulation of various light intensity, mixed planting with naturally

associated species and the planting of various seedling height will be observed in logged over area, ex-burnt area and undisturbed site.

Activity 1.2.4 To apply site manipulation using fertilizer, micro organism, etc

The application of fertilizers and microorganism in combination with environmental conditions will be tested in several site conditions (logged over area, ex-burnt area and undisturbed site).

Output 2.1 : Institutional and human resources capacity building on CITES implementation

Activity 2.1.1 To carry out a workshop to evaluate CITES implementation

Approximately 60 participants will be invited to attend the workshop to evaluate existing CITES implementation and to improve future implementation. Participants will be from provincial and district forest services, officers in forest product check points, officials from customs and other relevant institutions.

Activity 2.1.2 To identify training needs for CITES implementation on ramin

To obtain more specific needs to enhance and implement CITES Appendix III (and II), the training need analyses will be carried out and directed to promote the CITES implementation at all level of institution (decision maker, manager and officer at forest product check point and customs).

Activity 2.1.3 To develop manual and guideline for CITES implementation

Country manual and guidelines for the CITES implementation will be developed, prepared and printed to promote the implementation.

Activity 2.1.4 To carry out training for ramin wood identification

Simple and quick identification method for ramin wood will be developed and training will be conducted to improve institutional and human resource capacity in CITES implementation, especially for the officers in forest product checkpoints and customs.

Output 2.2 : Improved existing rules and regulation for ramin conservation and plantation including harvest protocols

Activity 2.2.1 To collect existing rules and regulation on ramin conservation and plantation

Activity includes to compile existing rules and regulation on ramin conservation, trade and rehabilitation. Rules and regulations required to promote conservation and plantation will be further developed.

Activity 2.2.2 To formulate required policy on ramin conservation and regulation

Policy on conservation will be developed based on result of the activity 2.2.1 which focus on the formulating policy on ramin conservation. This activity will be followed by the workshop on policy formulation involving various stakeholders.

Activity 2.2.3 To carry out a workshop to develop ramin harvest protocols

Approximately 40-50 participant will be invited to evaluate existing harvesting protocols on ramin and to improve and or to formulate the new one. The places of the workshop will be on sites either in Sumatra (PT. Diamond Raya Timber, Riau) or Kalimantan (PT. Inhutani II, West Kalimantan) and in Jakarta. Participants will be from FORDA, Indonesian Institute of Science (LIPI), Universities, private and state-owned companies, NGO and other relevant institutions.

To ensure local community involvement in the implementation of the project, the following steps will be taken: consultation to local communities, local leaders and other stakeholders on the formulation of policy on ramin conservation and harvest (Under Activity 2.2.2) and to appoint several local leaders or community representatives to be trained for CITES implementation with rules and regulations (Under activity 2.1.2-2.1.4).

5. Logical Framework WorkS

Project Elements	Indicators	Means of Verification	Assumption
Developmental Objective: The development objective of this project is to contribute to the prevention of further loss and to ensure the sustainable forest management of *Gonystylus spp* (ramin) in Indonesia	Recovery and conservation of ramin is progressing	MoF report on statistical data, export and illegal logging and plantation trials	Continuous support from local and central government
Specific Objectives: **1. To improve silvicultural techniques for ramin conservation and plantation developments** **2. To enhance institutional capacity to implement CITES rules and procedures**	The rate of habitat degradation gradually reduces and rehabilitation is in place, illegal trade decreases. Some plantation activities initiated	Reports on plantation activity, training, field trials, stakeholder meetings, Provincial forest service reports	Continuous support from central and local government
Outputs: **Output 1.1** : Propagation of high quality planting materials.	Method of propagation technique and high quality planting materials from both seedling and vegetative are available. Approximately 10,000 planting materials are available for field trials	Reports, techniques, list of seed and vegetative source, survey reports, seedling preparation reports	Large number of seeds and vegetative materials are available for collection
Output 1.2 : The development of field plantation technique	Planting techniques available, field trials at least 10 ha each in 4 locations (2 locations in Sumatra and 2 locations in Kalimantan) are carried out.	Reports, trial reports, site, field plantation reports, number of seedlings, nursery report.	No forest fires during and after field plantation trials in the site
Output 2.1 : Institutional capacity building on CITES implementation	Institutional and Human resources capacity improved, 60 participants dealing with CITES well trained	Reports, Guideline, manuals, list of participants	Related institutions are willing to participate
Output 2.2 : Improved existing rules and regulation for ramin conservation and plantation including harvest protocols	Existing rules and regulation improved, revised and feasible to be used, a newly formulated or improved harvest protocol available	Reports, workshop proceeding, list of participant, draft rules and regulation	Related institutions are willing to participate

6. Workplan

Output/Activities	Involve Institutions	Schedule (in quarter year)											
		Y1Q1	Y1Q2	Y1Q3	Y1Q4	Y2Q1	Y2Q2	Y2Q3	Y2Q4	Y3Q1	Y3Q2	Y3Q3	Y3Q4
Output 1.1 Propagation of high quality planting materials													
Activity 1.1.1	FORDA												
Activity 1.2.1	FORDA												
Activity 1.3.1	FORDA												
Activity 1.4.1	FORDA												
Output 1.2 The Development of field plantation technique													
Activity 1.2.1	INHUTANI/UNTAN												
Activity 1.2.2	INHUTANI/UNTAN												
Activity 1.2.3	INHUTANI/UNTAN												
Activity 1.2.4	INHUTANI/UNTAN												
Output 2.1 Institutional capacity building on CITES													
Activity 2.1.1	FORDA/PHKA												
Activity 2.1.2	FORDA/PHKA												
Activity 2.1.3	FORDA/PHKA												
Activity 2.1.4	FORDA/PHKA												
Output 2.2 Improved existing rules and regulation for ramin conservation and plantation including harvest protocols													
Activity 2.2.1	FORDA/PHKA												
Activity 2.2.2	FORDA/PHKA												
Activity 2.2.3	FORDA												
Non Activity based expenses	FORDA												

7.1. Worksheet of Budget Component

Output and Activities	Inputs		ITTO	GOI	Unit Cost (US $)	Quarter Year	Budget Compo-nent	Total	
	Units and quality							ITTO	GOI
1	2		3	4	5	6	7	8	9
Output 1.1. Propagation of high quality planting materials									
Activity 1.1.1 To identify ramin seed sources	1	National Experts	2		1.000	Q1Q2	14	2.000	-
	2	Other Labour	320	250	15	Y1	15	4.800	3.750
	3	Daily Subsistence Allowance	120		60		31	7.200	-
	4	Transports Costs	16		200		33,1	3.200	-
	5	Domestic Travel	8		200		33,2	1.600	-
	6	Consumable Items	1		1.000		50	1.000	-
	7	Miscellaneous	1		2.000		60	2.000	-
Total Activity 1.1.1								**21.800**	**3.750**
Activity 1.1.2 To identify ramin genetic variation using molecular markers	1	National Experts	2		1.000	Q1Q2	14	2.000	-
	2	Other Labour	320	250	15	Y2	15	4.800	3.750
	3	Daily Subsistence Allowance	120		60		31	7.200	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Consumable Items	1		4.500		50	4.500	-
	7	Miscellaneous	1		2.000		60	2.000	-
Total Activity 1.1.2								**22.900**	**3.750**
Activity 1.1.3 To identify seedling propagation technique	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	320	300	15	Y2	15	4.800	4.500
	3	Daily Subsistence Allowance	60		60		31	3.600	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Capital Equipment	1		2.500		44	2.500	-
	7	Consumable Items	1	0,5	2.000		50	2.000	1.000
	8	Miscellaneous	1	1	2.000		60	2.000	2.000
Total activity 1.1.3								**19.300**	**7.500**
Activity 1.1.4 To identify vegetative propagation technique	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	320	300	15	Y2	15	4.800	4.500
	3	Daily Subsistence Allowance	60		60		31	3.600	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Capital Equipment	1		1.000		41	1.000	-
	7	Consumable Items	1	0,5	2.000		50	2.000	1.000
	8	Miscellaneous	1	1	2.000		60	2.000	2.000
Total activity 1.1.4								**17.800**	**7.500**
Total Output 1. 1								**81.800**	**22.500**
Output 1.2 The development of field plantation technique									
Activity 1.2.1 To identify appropriate seedling treatments	1	National Experts	2		1.000	Q1Q2	14	2.000	-
	2	Other Labour	320	300	15	Y2	15	4.800	4.500
	3	Daily Subsistence Allowance	60		60		31	3.600	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Consumable Items	1	0,5	4.000		50	4.000	2.000
	7	Miscellaneous	1	1	2.000		60	2.000	2.000
Total Activity 1.2.1								**18.800**	**8.500**
Activity 1.2.2 To identify site requirement for growing	1	National Experts	4		1.000	Q2Q3	14	4.000	-
	2	Other Labour	320	300	15	Y1	15	4.800	4.500
	3	Daily Subsistence Allowance	120		60		31	7.200	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Consumable Items	1	0,5	4.000		50	4.000	2.000
	7	Miscellaneous	1	1	2.000		60	2.000	2.000
Total Activity 1.2.2								**24.400**	**8.500**

Activity 1.2.3 To identify appropriate plantation technique	1	National Experts	2		1.000	Q1Q2	14	2.000	-
	2	Other Labour	320		15	Y3	15	4.800	-
	3	Daily Subsistence Allowance	120		60		31	7.200	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Capital Equipment	1		2.500		41	2.500	-
	7	Consumable Items	1	0,5	8.000		50	8.000	4.000
	8	Miscellaneous	1	0,5	2.000		60	2.000	1.000
Total activity 1.2.3								**28.900**	**5.000**
Activity 1.2.4 To apply site manipulation using fertilizer, micro organism, etc	1	National Experts	2		1.000	Q1Q2	14	2.000	-
	2	Other Labour	320	300	15	Y3	15	4.800	4.500
	3	Daily Subsistence Allowance	75		60		31	4.500	-
	4	Transports Costs	16		200		33,1	3.200	-
	5	Domestic Travel	8		200		33,2	1.600	-
	6	Consumable Items	1	0,5	8.000		50	8.000	4.000
	7	Miscellaneous	1	1	2.000		60	2.000	2.000
Total activity 1.2.4								**26.100**	**10.500**
Total Output 1.2								**98.200**	**32.500**
Output 2.1 Institutional capacity building on CITES implementation									
Activity 2.1.1 To carry out workshop to evaluate CITES Implementation	1	National Experts	1		1.000	Q2Q3	14	1.000	-
	2	Other Labour	30		15	Y1	15	450	-
	3	Daily Subsistence Allowance	50		60		31	3.000	-
	4	Transports Costs	50		200		33,1	10.000	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Consumable Items	1		1.000		50	1.000	-
	7	Miscellaneous	1	1	1.750		60	1.750	1.750
Total Activity 2.1.1								**18.000**	**1.750**
Activity 2.1.2 To identify training needs for CITES implementation on ramin	1	National Experts	1		1.000	Q1Q2	14	1.000	-
	2	Other Labour	10		15	Y1	15	150	-
	3	Daily Subsistence Allowance	15	5	60		31	900	300
	4	Transports Costs	4	1	200		33,1	800	200
	5	Domestic Travel	2		200		33,2	400	-
	6	Capital Equipment	1		2.500		41	2.500	-
	7	Consumable Items	1	0,5	1.000		50	1.000	500
	8	Miscellaneous	1	1	1.750		60	1.750	1.750
Total Activity 2.1.2								**8.500**	**2.750**
Activity 2.1.3 To develop manual and guideline for CITES implementation	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	10		15	Y1	15	150	-
	3	Daily Subsistence Allowance	12		60		31	720	-
	4	Transports Costs	4		200		33,1	800	-
	5	Domestic Travel	2		200		33,2	400	-
	6	Consumable Items	1	1	2.000		50	2.000	2.000
	7	Miscellaneous	1	1	2.000		60	2.000	2.000
Total activity 2.1.3								**8.070**	**4.000**
Activity 2.1.4 To carry out training for ramin wood identification	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	60		15	Y1	15	900	-
	3	Daily Subsistence Allowance	50		60		31	3.000	-
	4	Transports Costs	50		200		33,1	10.000	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Consumable Items	1		1.250		50	1.250	-
	7	Miscellaneous	1	1	1.750		60	1.750	1.750
Total activity 2.1.4								**19.700**	**1.750**
Total Output 2.1								**54.270**	**10.250**

Output 2.2 Rules and regulation required for ramin conservation and plantation									
Activity 2.2.1 To collect existing rules and regulation on ramin conservation and plantation	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	10		15	Y1	15	150	-
	3	Daily Subsistence Allowance	24		60		31	1.440	-
	4	Transports Costs	8		200		33,1	1.600	-
	5	Domestic Travel	2		200		33,2	400	-
	6	Consumable Items	1		1.000		50	1.000	-
	7	Miscellaneous	1		2.000		60	2.000	-
Total Activity 2.2.1								**8.590**	**-**
Activity 2.2.2 To formulate required policy on ramin conservation and regulation	1	National Experts	2		1.000	Q3Q4	14	2.000	-
	2	Other Labour	20		15	Y1	15	300	-
	3	Daily Subsistence Allowance	24		60		31	1.440	-
	4	Transports Costs	4		200		33,1	800	-
	5	Domestic Travel	2		200		33,2	400	-
	6	Consumable Items	1		1.000		50	1.000	-
	7	Miscellaneous	1	1	2.000		60	2.000	2.000
Total Activity 2.2.2								**7.940**	**2.000**
Activity 2.2.3. To carry out a workshop to develop ramin harvesting protocols	1	National Experts	1		1.000	Q3Q4	14	1.000	-
	2	Other Labour	10		15	Y2	15	150	-
	3	Daily Subsistence Allowance	40		60		31	2.400	-
	4	Transports Costs	40		200		33,1	8.000	-
	5	Domestic Travel	4		200		33,2	800	-
	6	Capital Equipment	1		2.500		41	2.500	-
	7	Consumable Items	1		500		50	500	-
	8	Miscellaneous	1	1	1.750		60	1.750	1.750
Total activity 2.2.3								**17.100**	**1.750**
Total Output 2.2								**33.630**	**3.750**
Non Activity based expenses									
	1	MM Project Coordinator	36		2.000		11	72.000	-
	2	MM Project Secretary	36		400		12.1.	14.400	-
	3	MM Office Assistances	72		100		12.2.	7.200	-
	4	Daily Subsistence Allowance	36		60		31	2.160	-
	5	International Travel	1		3.600		32	3.600	-
	6	Transports Costs	4		200		33,1	800	-
	7	Domestic Travel	2		200		33,2	400	-
	8	Consumable Items	1	1,2	4.000		50	4.000	4.800
	9	Miscellaneous	1	1	8.000		60	8.000	8.000
Total Non Activity based expenses								**112.560**	**12.800**
Total Budget by activity								**380.460**	**81.800**

7.2. Overall Project Budget by Activity

Output and Activities	Budget Components														
	10. Project Personnels		20. Sub Contract		30 Duty Travel		40. Capital Items		50. Consumable Items		60. Miscellaneous		Quarter Year	Grand Total	
	ITTO	GOI	ITTO	GOI	ITTO	GOI	ITTO	GOI	ITTO	GOI	ITTO	GOI		ITTO	GOI
Output 1.1 Propagation of high quality planting materials															
Activity 1.1.1 To identify ramin seed sources	6.800	3.750	0	0	12.000	0	0	0	1.000	0	2.000	0	Q1Q2Y1	**21.800**	**3.750**
Activity 1.1.2 To identify ramin genetic variation using molecular markers	6.800	3.750	0	0	9.600	0	0	0	4.500	0	2.000	0	Q1Q2Y2	**22.900**	**3.750**
Activity 1.1.3 To identify seedling propagation technique	6.800	4.500	0	0	6.000	0	2500	0	2.000	1.000	2.000	2.000	Q3Q4Y2	**19.300**	**7.500**
Activity 1.1.4 To identify vegetative propagation technique	6.800	4.500	0	0	6.000	0	1000	0	2.000	1.000	2.000	2.000	Q3Q4Y2	**17.800**	**7.500**
Sub Total 1.1	**27.200**	**16.500**	**0**	**0**	**33.600**	**0**	**3.500**	**0**	**9.500**	**2.000**	**8.000**	**4.000**		**81.800**	**22.500**
Output 1.2 The development of field plantation technique															
Activity 1.2.1 To identify appropriate seedling treatments	6.800	4.500	0	0	6.000	0	0	0	4.000	2.000	2.000	2.000	Q1Q2Y2	**18.800**	**8.500**
Activity 1.2.2 To identify site requirement for growing	8.800	4.500	0	0	9.600	0	0	0	4.000	2.000	2.000	2.000	Q2Q3Y1	**24.400**	**8.500**
Activity 1.2.3 To identify appropriate plantation technique	6.800	0	0	0	9.600	0	2500	0	8.000	4.000	2.000	1.000	Q1Q2Y3	**28.900**	**5.000**
Activity 1.2.4 To apply site manipulation using fertilizer, micro organism, etc	6.800	4.500	0	0	9.300	0	0	0	8.000	4.000	2.000	2.000	Q1Q2Y3	**26.100**	**10.500**
Sub. Total 1.2	**29.200**	**13.500**	**0**	**0**	**34.500**	**0**	**2.500**	**0**	**24.000**	**12.000**	**8.000**	**7.000**		**98.200**	**32.500**

Output 2.1 Institutional capacity building on CITES implementation															
Activity 2.1.1 To carry out workshop to evaluate CITES Implementation	1.450	0	0	0	13.800	0	0	0	1.000	0	1.750	1.750	Q1Q2Y1	**18.000**	**1.750**
Activity 2.1.2 To identify training needs for CITES implementation on ramin	1.150	0	0	0	2.100	500	2500	0	1.000	500	1.750	1.750	Q1Q2Y1	**8.500**	**2.750**
Activity 2.1.3 To develop manual and guideline for CITES implementation	2.150	0	0	0	1.920	0	0	0	2.000	2.000	2.000	2.000	Q3Q4Y1	**8.070**	**4.000**
Activity 2.1.4 To carry out training for ramin wood identification	2.900	0	0	0	13.800	0	0	0	1.250	0	1.750	1.750	Q3Q4Y1	**19.700**	**1.750**
Sub Total 2.1	**7.650**	**0**	**0**	**0**	**31.620**	**500**	**2.500**	**0**	**5.250**	**2.500**	**7.250**	**7.250**		**54.270**	**10.250**
Output 2.2 Rules and regulation required for ramin conservation and plantation															
Activity 2.2.1 To collect existing rules and regulation on ramin conservation and plantation	2.150	0	0	0	3.440	0	0	0	1.000	0	2.000	0	Q3Q4Y1	**8.590**	**0**
Activity 2.2.2 To formulate required policy on ramin conservation and regulation	2.300	0	0	0	2.640	0	0	0	1.000	0	2.000	2.000	Q3Q4Y1	**7.940**	**2.000**
Activity 2.2.3 To carry out a workshop to develop ramin harvesting protocols	1.150	0	0	0	11.200	0	2500	0	500	0	1.750	1.750	Q3Q4Y2	**17.100**	**1.750**
Sub Total 2.2	**5.600**	**0**	**0**	**0**	**17.280**	**0**	**2.500**	**0**	**2.500**	**0**	**5.750**	**3.750**		**33.630**	**3.750**
Non Activity based expenses	**93.600**	**0**	**0**	**0**	**6.960**	**0**	**0**	**0**	**4.000**	**4.800**	**8.000**	**8.000**	**Q1-Q2Y1,Y2,Y3**	**112.560**	**12.800**
Total Budget	**163.250**	**30.000**	**0**	**0**	**123.960**	**500**	**11.000**	**0**	**45.250**	**21.300**	**37.000**	**30.000**		**380.460**	**81.800**

7.3. Consolidated Yearly Project Budget

Budget Components			ITTO	GOI	Total	ITTO Annual Disbursement			GOI Annual Disbursement		
						YEAR 1	YEAR 2	YEAR 3	YEAR 1	YEAR 2	YEAR 3
10	Project Personnel										
	11	Project Coordinator	72.000	0	72.000	24.000	24.000	24.000	0	0	0
	12	Project Staffs:									
		12.1. Secretary	14.400	0	14.400	4.800	4.800	4.800	0	0	0
		12.2. Office Assistances	7.200	0	7.200	2.400	2.400	2.400	0	0	0
	13	International Experts	0	0	0	0	0	0	0	0	0
	14	National Experts	29.000	0	29.000	16.000	9.000	4.000	0	0	0
	15	Other Labors	40.650	30.000	70.650	11.700	19.350	9.600	8.250	17.250	4.500
	19	**Component Total**	**163.250**	**30.000**	**193.250**	**58.900**	**59.550**	**44.800**	**8.250**	**17.250**	**4.500**
20	Sub Contract										
	21	Sub Contract	0	0	0	0	0	0	0	0	0
	22	Sub Contract	0	0	0	0	0	0	0	0	0
	29	**Component Total**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
30	Duty Travel										
	31	Daily Subsistence Allowance	59.160	300	59.460	25.620	21.120	12.420	300	0	0
	32	International Travel	3.600	0	3.600	3.600	0	0	0	0	0
	33	Transport Cost:									
		331. Domestic air travel	12.400	0	12.400	5.800	4.200	2.400	0	0	0
		332. Local transport (water/ground)	48.800	200	49.000	29.200	14.600	5.000	200	0	0
	39	**Component Total**	**123.960**	**500**	**124.460**	**64.220**	**39.920**	**19.820**	**500**	**0**	**0**
40	Capital Items										
	41	Capital Equipment	11.000	0	11.000	2.500	6.000	2.500	0	0	0
	49	**Component Total**	**11.000**	**0**	**11.000**	**2.500**	**6.000**	**2.500**	**0**	**0**	**0**
50	Consumable Items										
	59	**Component Total**	**45.250**	**21.300**	**66.550**	**14.250**	**14.000**	**17.000**	**6.100**	**5.600**	**9.600**
60	Miscellaneous										
	69	**Component Total**	**37.000**	**30.000**	**67.000**	**18.250**	**12.250**	**6.500**	**13.917**	**10.417**	**5.667**
Total Budget by Component			**380.460**	**81.800**	**462.260**	**158.120**	**131.720**	**90.620**	**28.767**	**33.267**	**19.767**

70	Executing Agency Management Cost										
	71	Executing Agency Management Cost (15% from total overall project budget)	0	69.339	69.339	0	0	0	23.113	23.113	23.113
	79	**Component Total**	**0**	**69.339**	**69.339**	**0**	**0**	**0**	**23.113**	**23.113**	**23.113**
80	ITTO Monitoring, Evaluation and Administration										
	81	Monitoring and Review Costs	18.000	0	18.000						
	82	Ex-Post Evaluation Cost	10.000	0	10.000						
	83	Programme Support Cost (8% from total)	32.677	0	32.677						
	89	**Component Total**	**60.677**	**0**	**60.677**						
90	**Refund of Pre-Project Costs**		**66.766**	**23.500**	**90.266**						
100	**GRAND TOTAL**		**507.903**	**174.639**	**682.542**						

7.3.1. Yearly project budget by source – ITTO

Annual disbursement / Budget Component	Total	Year		
		1	2	3
10. Project Personnels	163.250	58.900	59.550	44.800
20. Sub-contract	0	0	0	0
30. Duty travel	123.960	64.220	39.920	19.820
40. Capital Item	11.000	2.500	6.000	2.500
50. Consumable Item	45.250	14.250	14.000	17.000
60. Miscellaneous	37.000	18.250	12.250	6.500
70. Executing Agency Management Costs	0	0	0	0
Sub Total 1	**380.460**	**158.120**	**131.720**	**90.620**
80. ITTO Monitoring, Evaluation and Administration Costs				
81. Monitoring and Review	18.000			
82. Evaluation	10.000			
Sub Total 2	**408.460**			
83. Program Support Cost (8% of subtotal 2)	**32.677**			
90. Refund of Pre-Project Costs	**66.766**			
ITTO TOTAL	**507.903**			

7.3.2. Yearly project budget by source - GOI

Annual disbursement / Budget Component	Total	Year		
		1	2	3
10. Project Personnels	30.000	8.250	17.250	4.500
20. Sub-contract	0	0	0	0
30. Duty travel	500	500	0	0
40. Capital Item	0	0	0	0
50. Consumable Item	21.300	6.100	5.600	9.600
60. Miscellaneous	30.000	13.917	10.417	5.667
Sub Total 1	**81.800**	**28.767**	**33.267**	**19.767**
70. Executing Agency Management Costs (15% of Total of Overall Project Budget by Activity)	69.339	23.113	23.113	23.113
80. ITTO Monitoring, Evaluation and Administration Costs				
81. Monitoring and Review	0			
82. Evaluation	0			
83. Program Support Cost (8% of subtotal 2)	0			
90. Refund of Pre-Project Costs	**23.500**			
GOI TOTAL	**174.639**			

PART III: OPERATIONAL ARRANGEMENTS

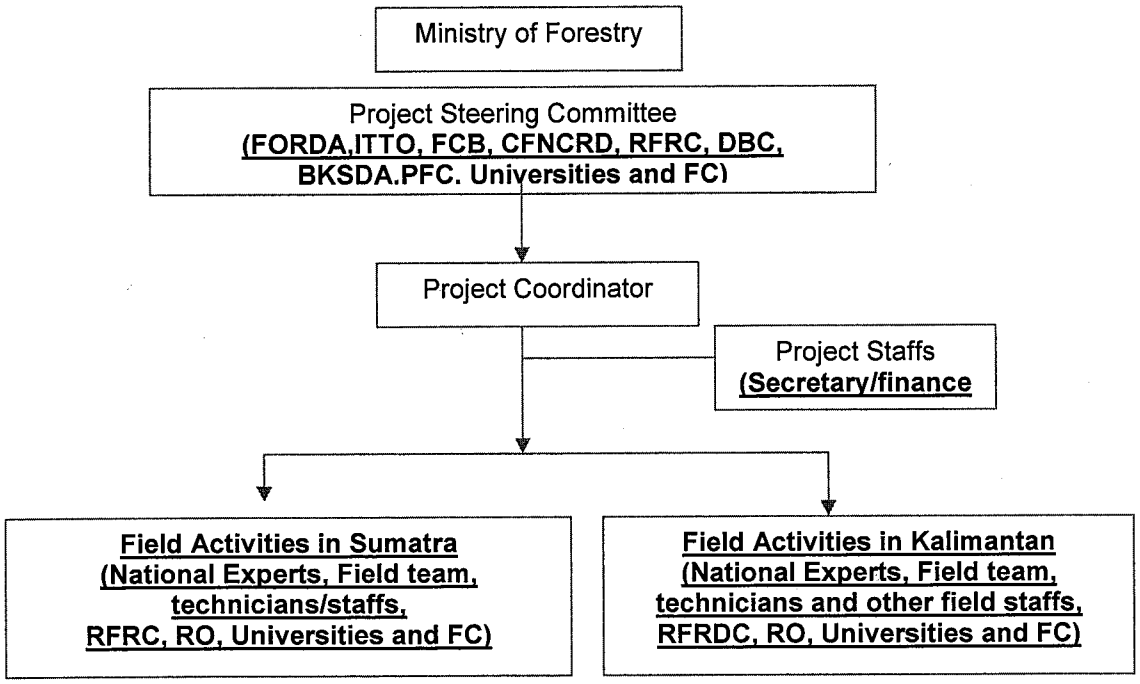
1. Management Structure

The project will be executed by Forestry Research and Development Agency (FORDA), **which will be responsible for overall coordination and the production of all outputs. To achieve these, the Agency will assign a high qualified personnel as Project Coordinator with at least having experience in handling ITTO project on ramin. The Project Coordinator will be determined and the first priority will be put to those involved in the management of pre-project who are assumed to have full understanding of the whole project activities. The Project Coordinator will carry out all the responsibility for the overall project coordination, project account and for the production of all outputs. The Project Coordinator will be assisted by Project staff (Secretary and or finance staff) with should also have sufficient experience in ITTO Project and field technicians (See Organization chart).**

In the implementation, the Project will establish cooperation and or joint operational activities with other institutions within the FORDA (i.e. Center for Forest and nature Conservation Research and Development (CFNCRD), Regional Forestry Research Center (RFRC) in Sumatra and Kalimantan and with other institutions within the Ministry of Forestry (Directorate of Biodiversity Conservation and Regional Office for Forest Protection and Nature Conservation PHKA), Research Organizations (RO-National Institute of Science, SEAMEO-Biotrop), Universities, State owned (PT. INHUTANI) and private owned companies (PT. Diamond Raya Timber) and NGO in both Sumatra and Kalimantan.. FORDA remains the main responsible agency for the design and **the implementation of the** activities. The involvement and role of those institutions will be arranged based on Term of Reference (TOR) prepared by the project and approved by PSC and ITTO Projects manager.

A Project Steering Committee (PSC) will be formed and chaired by the Director General of FORDA, consisting of at least one representative from ITTO, Foreign Cooperation Bureau (FCB), Center for Forest and Nature Conservation Research and Development (CFNCRD-FORDA), Regional Forestry Research Center (RFRC-Sumatra and Kalimantan), Directorate of Biodiversity Conservation (DBC-PHKA),), Regional Offices for Forest Protection and Nature Conservation (BKSDA) of Sumatra and Kalimantan, Provincial Forest Services (PFC), Research Organization (RO), University of Tanjung Pura (West Kalimantan) and Forest Companies (FC).

The organization structure of the project is outlined below.



2. Monitoring, Reporting, and Evaluation

2.1. Project Progress Reports

An Overall Project Progress Report will be prepared and submitted bi-annually to ITTO or at such other times ITTO or the steering committee may require. The Overall Project Progress Report encompasses all activities of the projects. Progress Reports of each activity will be prepared by respective expert and field team for each activity and Project Coordinator is responsible for the preparation of the Overall Project Progress Report.

2.2. Project Completion Report

Project Completion Report will be prepared upon the completion of the project, or in any case within three months after the project completion. A Project Completion Report will be prepared and submitted to ITTO along with all Technical Reports prepared.

2.3. Project Technical Reports

Project Technical Reports will be prepared, At least one technical report for 2-4 activities as the verification of outputs. The Technical Report is submitted case by case or at least within three months after the project completion.

2.4. Steering Committee, Monitoring and Review

A Project Steering Committee (PSC) of the project will be formed by FORDA. Members of the PSC will be determined and assigned by FORDA as described in the Management Structure. PSC will be responsible for the direction and interim evaluation of the project, will monitor and review the project progress on a regular basis, at least once every 12 months.

2.5. Evaluation

Based on the monitoring results, it will be determined whether midterm evaluation is necessary.

3. Future Operations and Maintenance

The main goal of the proposed project is to prevent further loss of ramin growing stocks and habitat and to promote the rehabilitation and plantation of ramin forest. The ultimate goal of the project could not be fully achieved by the end of the first phase. It requires further efforts toward the success of the ramin recovery. The technology developed (propagation and plantation) by the project is a long-term endeavor. The first phase will provide an initial stage for the sustainable management of ramin forests toward the final goal through the prevention of further degradation and provision of basic requirement for rehabilitation: high quality planting materials. For ramin, provision of high quality planting materials is very crucial not only its quality but also quantity. Seeds are not always available due to its interval flowering and fruiting seasons. The first phase of this project, however, will focus on the identification and development of propagation technique from both seeds and vegetative materials and plantation technology which covers all aspects of field plantation trials. At the same time institutional and human resource capacity building, especially in CITES implementation will also be carried out. The second phase will focus on the large scale field plantation, including the continuation of field trials for plantation and capacity building. The Government of Indonesia will seek various alternatives, including sources of fund to ensure the sustainability of the activity until ramin forests are fully recovered. Regional Forestry Research Center in Sumatra and Kalimantan will continue to receive support form FORDA (MoF) to keep going and maintain the field sites and trials. PT. Inhutani II West Kalimantan is also in

need to keep on going and continue the research activities and plantation program. Private companies, such as PT. Diamond Raya Timber, PT. Putra Duta Indah Wood and PT. Inhutani II will implement the project outcome in conservation and plantation of ramin.

PART IV: THE TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTA 1994 Objectives

The proposed project is consistent with the ITTO objectives as stipulated in Article 1 of the ITTA (1994). Specifically this project directly relates to the following objectives:

- Contribute to the process of sustainable development. Indonesia has ratified various convention related to sustainable management. Active involvement in various meeting, such as World Summit on Sustainable Development (WSSD) also indicates strong commitments to the sustainable development. The commitments have been translated into various efforts to ensure the achievement of sustainable development. In forestry, the priority programs to achieve the sustainable development have been set out as described in previous chapter.

- Enhance the capacity of members to implement a strategy for achieving exports of tropical timber and timber products from sustainably managed sources by the year 2000. Moratorium policy issued by the Government of Indonesia in 2001 is one of the efforts to ensure further destruction of natural resource is not taking place and forest extraction is carried out based on the sustainable manner. These have also been enhanced by the listing of several endangered species into CITES appendix such as ramin.

- Promote and support research and development with a view to improving forest management and efficiency of wood utilization as well as increasing the capacity to conserve and enhance other forest values in timber producing tropical forests. Promotion of research and development in forest management is also part of this project which comply with ITTA objective. Various research institutions will involve in various activity to ensure the useful findings will be achieved and the finding will contribute to the sustainable management of ramin forests.

- Encourage members to develop national policies aimed at sustainable utilization and conservation of timber producing forests and their genetic resources and at maintaining the ecological balance in the regions concerned, in the context of tropical timber trade. This project also supports the ITTA objective by identification of seed sources and seed production areas from which high genetic materials will captured and included in the plantation of ramin.

2. Compliance with ITTO Action Plan 2002-2006

This project conforms with the ITTO Action Plan and Decision 2(XXXVII): enhanced cooperation between ITTO and CITES for ramin and mahogany, especially in the following aspect:

- National forest inventory, particularly on sustainable availability of a particular timber species, which in this case is ramin (*Gonystylus spp*).

- Strategy towards the sustainable management of tropical forests and trade in tropical timber products.

- Studies on supply and demand, including the availability of supply and market acceptance of a particular timber species.

- Comparative assessment of silvicultural treatments on permanent plots.

- Developing inventory plans, management and silvicultural prescription, as required, for CITES listed species

- Developing guidelines/handbooks on management, monitoring and control procedures (including making, NDF) for CITES sited species.

ANNEX A: Profile of the Executing Agency

Center for Forest and Nature Conservation Research and Development (CFNCRD) is a research center under Forestry Research and Development Agency (FORDA). It is a subsidiary body of the Ministry of Forestry. FORDA is the holder of scientific authority on forestry, and therefore responsible for the availability of scientific information and technologies for decision making as well as for practical uses.

Some of FORDA (as well as FNCRD) missions are:

To conduct research and development to secure forest resource base
To develop harvesting techniques and silvicultural practices to secure and promote recovery of habitat and ecosystem as a whole
To provide information, data and assessment for policy making

FORDA is supported by 4 (four) Research and Development Centers located in Bogor which will directly and indirectly involve in the execution of the proposed project. Those centers are:

1. Center for Forest and Nature Conservation Research and Development
2. Center for Forest Product Technology Research and Development
3. Center for Institutional capacity building, Social and Economic Research and Development
4. Center for Forest Plantation Research and Development

In addition to those Centers, there are at least 11 (eleven) Centers and Regional Centers. Some of them are Regional Research Centers widely distributed throughout the archipelago. Regional Research Center for Kalimantan, located in Samarinda (East Kalimantan), Regional Research Center for Forest Plantation located in Banjar Baru (South Kalimantan), Regional Research Center for Forest Plantation for Sumatra, located in Palembang (South Kalimantan) and other Regional Research Centers and Research Stations

FORDA employs more than 500 scientists of various disciplines. More than 50 scientists are PhDs, and over half of the total holds Master degree. In terms of facilities, FORDA has various laboratories and many field research sites and station all over Indonesia.

FORDA's research activities encompass all forestry aspects from basic botany and ecology to marketing and policy analysis. Those activities are derived from FORDA's programs articulated in a long-term Strategic Plan. Research activities are distributed accordingly to the four Centers under the FORDA and its Regional Research Centers.

FORDA's facilities are libraries, laboratories, herbarium collection, office building and experimental forests.

FORDA receives annual budget up to Rp. 80 000 000 000 (Eighty billion rupiahs) equivalent to US$ 10 000 000 (Ten million US Dollars) distributed to all over the Centers and Regional Research Centers. FORDA has long experience in managing collaborative works between local and international institutions, such JICA, DFID, European Union, ACIAR, etc..

ANNEX B. Curriculum Vitae of Project Formulator and Co-Formulator

Below are the Curriculum Vitae of the project formulator and consultant:

1. Ir. Tajudin Edy Komar, M.Sc.

Name : Ir. Tajudin Edy Komar MSc.
Date and place of birth and nationality : South Sumatra, October 1958, Indonesian

Field and Institution of Graduation :

Silviculture (Forest Management), Faculty of Forestry
Bogor Agricultural University, Bogor, 1984

Field and institution of Post Graduation :

Forest Biology, Department of Biology, University of Victoria,
Victoria, British Columbia, Canada 1996.

Experience with ITTO Projects

- Consultant in ITTO Project PD89/00 Rev 3(F): Limitation to regeneration in Production Forest, Malinau Research Forest, East Kalimantan

- Project Formulator ITTO Pre-Project PPD 87/03 Rev.1 (F): Identification on *Gonystylus* spp (Ramin) potency, distribution, conservation and plantation barrier. Project approved and financed

- Co-Project Formulator for ITTO PD245/03 Rev (F). Strategies for sustainable management and use of the Sungai Sembilang mangrove ecosystem in South Sumatra, Indonesia. Project approved and under financing

- Co-Project Formulator for ITTO PD277/04 Rev.3 (I). Promoting Selected Non-Timber Forest Product Based on Community Participation Approach to Support Sustainable Forest Management in East Kalimantan. Project approved and financed.

- A member of Clearing House for ITTO Proposal, appointed by Ministry of Forestry

2. Dr. Hilman Affandi (Consultant)

Name : Dr. Hilman Affandi.
Date and place of birth and nationality : Bogor, West Java, Indonesian

Field and Institution of Graduation :

Forest Product Chemistry, Bogor Academy of Chemistry

Field and Institution of Post Graduation :

Forest Product Chemistry, PhD, New South Wales, Sydney, Australia

Experience with ITTO Projects

- Project Leader ITTOPD58/99 Rev.1 (I). Introduction of a village industry in a community around industrial forest plantation.
- Expert in ITTO Pre-Project : Assessment for rehabilitation of Mangrove forest in Aceh.
- Project Formulator for ITTO PD 372/05 (F): The Rehabilitation of Mangrove on the coastal areas of Aceh, Indonesia. Project approved and under financing.

ANNEX C(1). Term of Reference (TOR) for National Expert

a). Term of Reference for National experts (s) to achieve Outputs 1.1 and 1.2.

Position: National Experts will be assigned to Achieve Outputs 1.1 and 1.2. The expert (s) must hold expertise and knowledge in related field, at least hold experience in tropical forest silviculture.

The expert (s) will be responsible to carry out the assigned activities, alone and or with the agreed team to achieve the Output. Detail work description is provided based on each activity (assignment). The expert (s) prepare one or more technical reports depending on the number of activity assigned (at least one technical report for one activity). The submission of the technical report is within the period of assignment. The technical reports and data base must be presented in the meeting held by the project or concurrently with PSC Meeting

Qualification, time and payment: Hold at least Master degree and 2-3 years experience in relevant field, good understanding in English both oral and written. Expert will carry out activity concerned within time allocated by the project. Rate of payment is in accord with the budget allocated as appear in Budget Sheet and up to US$ 2,500 per month for National Expert.

b). Term of Reference for National Expert (s) to achieve Outputs 2.1 and 2.2

Position: National Experts will be assigned to Achieve Outputs 2.1 and 2.2. The experts (s) must hold expertise and knowledge in related field, especially in the rehabilitation activities, biophysical conditions of peat swamp forests and forest management.

The expert (s) will be responsible to carry out activities assigned, with agreed team work and or collaborative institution. Detail work description is provided based on each activity (assignment). The expert (s) prepare one or more technical reports in accordance with the activity concerned. The submission of the technical report, final draft of technical report is within the period of assignment. The technical reports must be presented in the meeting held by the project or concurrently with PSC Meeting

Qualification, time and payment: Hold at least Master degree and 2-3 years experience in relevant field, good understanding in English both oral and written. Expert will carry out activity concerned within time allocated by the project. Rate of payment is in accord with the budget allocated as appear in Budget Sheet and up to US$ 2,500 for National Expert.

ANNEX C (2) TOR for Project Coordinator

a). Term of Reference (TOR) for Project Coordinator

Position: One Project Coordinator will be hired to run the project and to coordinate operational activities. The Project Coordinator will be determined and assigned by FORDA as Executing Agency based on his or her qualification and understanding of the overall project activities.

Responsibilities: Coordinate and supervise all activities and ensure overall objectives are achieved, work closely with all parties and personnel involved in the project, and to be responsible for day to day management and in integration of planned activities including funds applied to the project and for the preparation of technical and operational reports.

Qualification, experience and payment: Hold at least MSc. Degree in forestry, good understanding on the overall objectives, outputs to be achieved and activities to be carried out; having working experience in International Organization; high communication and language ability, especially English. Salary for Project Coordinator is allocated in the Budget Sheet. He or she receives Daily Subsistence Allowance during duty travels.

ANNEX C (3) TOR for Project Secretary

Position: One qualified person will be hired to be a Project Secretary. Candidate and hiring process will be in close consultation with the Director of CFCRD.

Responsibilities: The Project Secretary assists Project Coordinator in all administrative works and financial matters, as well as to arrange scheduled meetings and to maintain communication between Project Personnel.

Qualification, experience and payment: Basic requirement are experience in finance and general administrative work (experience with ITTO project is preferable), high performance of MS Office (Words, Excel, Access and e-mail), available to work hard and work overtime, better/understanding of English. Payment as allocated in Budget Sheet (US $ 400 per month).

ANNEX C (4) TOR for Office Assistances

Responsibilities: to assist project management in carrying out a whole project with specific to office management, documentation, administration and mobility.

Qualification: Hold at least senior high school, good computer literacy (word, excel, power point, internet), having driver license (motor cycle, car)

Payment, time of service: Payment is in accordance with project allocation (US $ 100); time of service is yearly based on contract and could be extended.

ANNEX D (1) Letter of Intent WWF Indonesia

Lampiran. 3.

THE LETTER OF INTENT
WWF INDONESIA SEBANGAU CONSERVATION PROJECT

PARTICIPATION ON ITTO PROJECT OF IDENTIFICATION
of Gonystylus spp. (Ramin) POTENCY, DISTRIBUTION, CONSERVATION and PLANTATION BARRIER

To Whom It May Concern:

The undersigned, Mr. Drasnspolino, Project Leader of WWF-Indonesia, Sebangau Conservation Project, Central Kalimantan, acknowledge, understand and agree to fully support the Forestry Research and Development Agency (FORDA), Centre for Forest and Nature Conservation Research and Development, Indonesian Ministry of Forestry (MoF), as the executing Agency of International Tropical Timber Organization's (ITTO) project, entitled : "THE PREVENTION OF FURTHER LOSS AND THE PROMOTION OF REHABILATATION AN PLANTATION OF GONYSTYLUS SPP. (RAMIN) IN SUMATERA AND KALIMANTAN". Our support includes some field station facilities and water transportation (in kind contribution).

Palangka Raya, 20 December 2005

WWF-Indonesia
Sebangau Conservation Project
Central Kalimantan,

Ir. Drasnspolino, M.Sc
Project Leader

1

ANNEX D (2) Letter of Intent PT. INHUTANI II

PT
PERSERO INHUTANI II
(P T EKSPLOITASI DAN INDUSTRI HUTAN II)
Kantor Direksi Jl. Tebet Timur Raya No. 7 Jakarta 12820 Indonesia
Tel. (021) 829 0572, 829 0853 • Fax. (021) 829 7490 • Email: ir2@cbn.net.id

THE LETTER OF INTENT OF PT. INHUTANI II

TO WHOM IT MAY CONCERN

The undersigned, Mr. Ir. Arifin Trihastoyo, MM Director of PT Inhutani II acknowledge, understand and agree to fully support the Forestry Research and Development Agency (FORDA), Center for Forest and Nature Conservation Research and Development, Indonesian Ministry of Forestry (MOF), as the Executing Agency of International Tropical Timber Organization's (ITTO) project, entitled: **" THE PREVENTION OF FURTHER LOSS AND THE PROMOTION OF REHABILITATION AN PLANTATION OF *GONYSTYLUS SPP.* (RAMIN) IN SUMATRA AND KALIMANTAN"**. Our support includes some office facilities, nursery and pilot planting sites worth about US $ 71, 000 (in kind contribution), located in Segedong, Mandor district, Landak Regency, West Kalimantan Province.

Jakarta, 21 Desember 2005
PT. INHUTANI II

(Ir. Arifin Trihastoyo, MM)
Director

ANNEX D (3) Letter of Intent Tanjungpura Univesity

TO WHOM IT MAY CONCERN

The undersigned, Prof. Ir. Sakunto, MSc., Dean of Faculty of Forestry Tanjungpura University acknowledge, understand and agree, under the coordination and supervision of Prof. Dr. Herujono Hadisuparto MSc, Forest Soil Scientist and Ecologist, to fully support the Forestry Research and Development Agency (FORDA), Center for Forest and Nature Conservation Research and Development, Indonesian Ministry of Forestry (MOF), as the Executing Agency of International Tropical Timber Organization's (ITTO) project, entitled: " THE PREVENTION OF FURTHER LOSS AND THE PROMOTION OF REHABILITATION AND PLANTATION OF GONYSTYLUS SPP. (RAMIN) IN SUMATRA AND KALIMANTAN". Our support includes some office facilities, nursery and pilot planting sites worth US $ 1,400.- (in kind contribution).

Pontianak, 22 December 2005

Faculty of Forestry Tanjungpura University,

(Prof. Ir. Sakunto, MSc.)
Dean

ANNEX E
32nd EXPERT PANEL RECOMMENDED

No.	32nd Expert Panel Recommended	Revised	Page
1.	Clarify and justify why not all of the main causes of ramin forest degradation documented by the pre-project were considered in the problem analysis.	Ramin is one of the valuable timber species that grow naturally in natural forest. Because of its high value, ramin is one of the most wanted timbers in the country with poor law enforcement on rules and regulations by the responsible parties related to its protection, conservation harvest and trade. The illegal harvest and poor law enforcement have caused serious threat and problems to its sustainability, however, not all of the problems could be incorporated in this project due to its irrelevancy and possibility to be covered by the project. Therefore, only those relevance to the proposed project are highlighted in the problem tree (Figure 1) and incorporated in project activities. Other project such as FLEGT has accommodated the problem related to trade and illegal harvest.	5
2.	Redefine the Specific objective as follows: ▪ Specific Objective 1: To improve silvicultural techniques for ramin conservation and plantation development ▪ Specific Objective 2: To enhance institutional capacity to implement CITES rules and procedures ▪ The current Outputs 1 and 2 shall be put under the Specific Objective 1 and outputs 3 and 4 under the Specific Objective	▪ Specific Objective 1: To improve silvicultural techniques for ramin conservation and plantation development – Output 1.1: Propagation of high quality planting materials. – Output 1.2: The development of field plantation technique ▪ Specific Objective 2: To enhance institutional capacity to implement CITES rules and procedures – Output 2.1: Institutional and human resources capacity building on CITES implementation – Output 2.2: Improved existing rules and regulation for ramin conservation and plantation including harvest protocols. ▪ TOR for national expert	4, 12 – 15, and 33
3.	Provide information on how local communities will be involved in the implementation stage of the project.	To ensure local community involvement in the implementation of the project, the following steps will be taken: consultation to local communities, local leaders and other stakeholders on the formulation of policy on ramin conservation and harvest (Under Activity 2.2.2) and to appoint several local leaders or community representatives to be trained for CITES implementation with rules and regulations (Under activity 2.1.2-2.1.4).	15

4.	Include more relevant information on scientific and technical aspect of the project by summarizing findings of previous works.	See point 2.5. However, some preliminary observations by various agencies ... DG of Land Rehabilitation and Social Forestry (MoF)	10-11
5.	Elaborate risks in relation with the assumptions made and formulate risk mitigating measures accordingly especially as regards forest fire.	See point 2.9. To reduce risk of fires in the field plantation trials, several approaches will be taken ... especially on National Movement for Forest and Land Rehabilitation (GN-RHL).	12
6.	Improve the management structure to reflect participation of stakeholders in project implementation.	See Part III point 1 ... which will be responsible for overall ... Universities and FC)	26
7.	Elaborate impacts of the project focusing on the social and economic impacts on local communities	See point 2.6 Similar to the social impact the project will have positive impact to local communities in the form of employment opportunities during the project implementation. Economic impact will also be realized after the recovery of ramin production (ramin forest) that will enable wood industries to develop and the development will promote the provision of job opportunities that in turn will promote community prosperity and point 2.8 This project will have positive impact to local community by direct involvement some of local community in the project during operational activities, such as field survey on seed sources identification, raising seedling in nurseries and field plantation trials. Long term impact to local community will be in the form of employment opportunities after the recovery of ramin production in logging activities, sawmills and other ramin wood industries.	11-12
8.	Strengthen and clarify the strategy presented on page 9 focusing on Phase I	See point 2.3. One of the means toward the solutions of ramin ... promoting the existing technique.	8-9
9.	Increase the contribution of the government to the project.	See Table 7.1 – 7.3.2	18-25