

# INTERNATIONAL TROPICAL TIMBER ORGANIZATION

## ITTO

### PRE-PROJECT DOCUMENT

TITLE	APPLICATION OF PRODUCTION AND UTILIZATION TECHNOLOGIES FOR RATTAN SUSTAINABLE DEVELOPMENT IN THE ASEAN MEMBER COUNTRIES
SERIAL NUMBER	PPD 51/02 REV.1 (I)
COMMITTEE	FOREST INDUSTRY
SUBMITTED BY	GOVERNMENT OF THE PHILIPPINES
ORIGINAL	ENGLISH

#### SUMMARY

The Experts' Consultation on Rattan Development that was held in Rome last 5-7 December 2000 emphasized the economic, socio-cultural and ecological importance of rattan to a large number of people in the world. To this end, the experts' consultation called for a concerted effort of governments, the private sector, NGOs and relevant international agencies such as ITTO to work together for the development of the rattan sector.

This pre-project intends to assess the socio-economic acceptability, financial and market feasibility of rattan production and utilization technologies in the Southeast Asia region. The pre-project will conduct situational analyses of the rattan commodity and the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities and plantations in the ASEAN member countries. The pre-project will engage interaction with ASEAN key regulatory bodies dealing with rattan. The future actions needed to enhance ASEAN regional cooperation through collaborative research in rattan development will be determined. The project activities shall include the ASEAN Regional Conference on Rattan Sustainable Development.

EXECUTING AGENCY	Ecosystems Research and Development Bureau (ERDB)/UPLB Unit Department of Environment and Natural Resources (DENR)	
COLLABORATING AGENCIES	Forest Products Research and Development Institute (FPRDI) Department of Science and Technology (DOST) University of Philippines, Los Banos	
DURATION	12 MONTHS	
APPROXIMATE STARTING DATE	UPON APPROVAL	
PROPOSED BUDGET AND OTHER FUNDING SOURCES	Source	Contribution in (US\$)
	ITTO	102,464
	Gov't of The Philippines	73,350
	<b>TOTAL</b>	<b>175,814</b>



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## **PART I: CONTEXT**

### **1. Origin**

The Experts' Consultation on Rattan Development that was held in Rome last 5-7 December 2000 emphasized the economic, socio-cultural and ecological importance of rattan to a large number of people in the world. Based on the presentations and discussions, the meeting noted that rattan resources in their natural range of tropical forests in Asia and Africa were being depleted through overexploitation, inadequate replenishment, poor management and loss of forest habitats. There is need to ensure sustainable supply of rattan through improved and equitable management.

The meeting underlined that there could be no sustainable supply of rattan if the forests in which they grow are not managed sustainably. Rattan at present is not sustainably managed in its natural habitat. It has low priority in national forest and conservation policies. There is lack of a dedicated rattan development institute in any country. Rattan development is subsumed within the forestry services and oftentimes relegated in the background. The few existing national rattan programs are weak and limited in research and development capacity. Except for a few, national inventories do not include rattan and information on the resource base is scarce. To this end, the experts' consultation called for a concerted effort of governments, the private sector, NGOs and relevant international agencies such as ITTO to work together for the development of the rattan sector.

The importance of rattan in Asia is highly recognized. In 1996, ITTO funded the comprehensive studies of the structure and properties of rattans for effective utilization in China. Research works were done on physical and mechanical properties of Philippine rattans. Also, chemical applications to enhance cane quality were tested (FPRDI, Philippines). These were initiatives to improve technology in utilization.

This pre-project thus, proposes to assess the market situation of rattan in terms of prices, demand, supply, marketing practices and flows. The information to be generated is seen as inputs to future rattan projects on utilization, plantation development and technology adoption.

### **2. Sectoral Policies**

This proposed pre-project would support the national governments in its thrust to achieve sustainable development of forest-based industries through the determination of the actual market situation for the development of another project geared towards technology transfer of production and utilization for rattan.

Rattan is considered the most important of the NWFPs, second only to timber (Philippine Master Plan in Forestry, 1990). In the implementation of Community Based Forest Management (CBFM) as mandated by the government policy (Executive Order No. 263 Series of 1995) towards sustainable forest management, rattan is a forest species used for comprehensive site development. By focusing on its importance as alternative to timber, rattan is viewed to provide economic and financial returns to greatest proportion of our society as timber does which are politically, socially, ecologically and culturally acceptable. This move to refocus the importance of rattan will systematically lessen the pressure on timber and increase the appreciation for its value as a substitute for timber and as a major source of income for the upland communities.

In the Philippines and elsewhere in Asia, rattan fuels small to large industries in manufacturing finished products for exports and domestic use. Likewise, rattan has been

used as plantation species to increase productivity of second growth forest as well as potential crop for agroforestry.

### 3. Programmes and Operational Activities

The pre-project is ASEAN-wide endeavor that will cover Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Vietnam, and the Philippines. It is in most ASEAN countries where rattan products and its by-products are manufactured in small- to large-scale industries. Thus, there is a critical need for rattan raw materials. Although the ASEAN countries are considered as haven of rattans and more than 600 species of which thrive in these geographical locations, finding equilibrium for the supply and demand dimensions seems to be wanting.

In the forestry sector program, oftentimes the emphasis was put on forest trees, farms and watershed rehabilitation and none directly addressed on rattan development. International Development Research of Canada (IDRC) had supported a research and development program on rattan and later continued by International Network on Bamboo and Rattan (INBAR). This project generated technologies in both production and utilization aspects. However, adoption and application of technologies have yet to be realized in order to harness the economic potential of rattans.

The Ecosystems Research and Development Bureau (ERDB) of the Department of Environment and Natural Resources (DENR) will be the executing agency in the implementation of the pre-project. ERDB has the resources and administrative facilities necessary to conduct and administer the project in accordance with ITTO requirements. The implementing agency shall provide the salaries, medicare and insurance of regular project personnel in cash and in kind. Director Celso P. Diaz and Dr. Aida Baja-Lapis are the key staff of the pre-project. Please refer to their curricula vitae in Annex B.

Forest Products Development and Research Institute (FPRDI), Department of Science and Technology (DOST) and the University of the Philippines Los Baños College of Forestry and Natural Resources (UPLBCFNR) will be the collaborators and providers of technical expertise such as national experts. ERDB, FPRDI and UPLBCFNR are premiere institutions in rattan production and utilization research and development in the Philippines. They have pioneered in the implementation of earlier projects on rattan production and utilization and have developed the pool of rattan experts and sets of generated technologies.

Project management (please refer to Figure 1) shall adopt a holistic strategy in addressing the various objectives. An Overall Pre-Project Coordinator (OPPC) will manage and administer all activities to attain the pre-project objectives. The OPPC will be assisted by two (2) Pre-Project Leaders (PPLs) (one each for

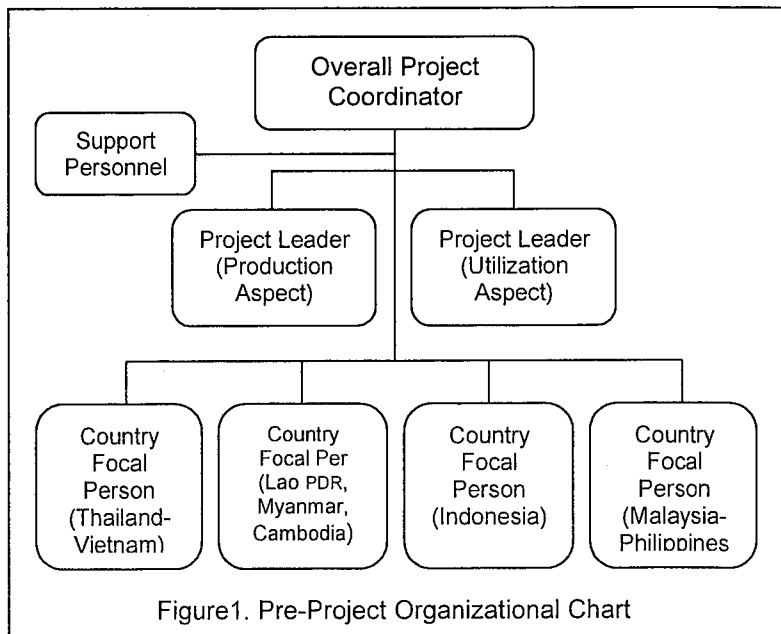


Figure1. Pre-Project Organizational Chart

production and utilization aspects). They shall formulate plans and programs for an efficient and effective implementation of the pre-project. They shall assign technical Consultants and support personnel of the pre-project. They shall identify four (4) Country Focal Persons who would help them in data and information gathering from the respective participating ASEAN countries. A Research Assistant (RA) will be hired to support the OPPC and the PPLs in the documentation, preparation and integration of pertinent reports/documents that must be submitted to ITTO. They (OPPC, PPLs & RA) shall coordinate with DENR, Department of Trade and Industry (DTI), concerned institutions of ASEAN member countries, traders, furniture and handicraft enterprises, and other stakeholders involved and dealing with rattan. Also, INBAR experts will be consulted whenever necessary.

This pre-project will capture the present socio-economic status of the ASEAN member countries' rattan industry. The source of raw materials, its productivity, prices and practices will be assessed. Another aspect to be given focus is the market for rattan raw materials and end products in the region. How much rattan is needed by each sector of the industry? What quality is suitable to their requirements/ needs? The various key players in the marketing chain will be identified. The roles and needs together with the acceptable market prices will be evaluated.

This pre-project is expected to determine and analyze the demand-supply status of rattan and its economic/market indicators, i.e. price costs, marketing practices, product quality indices, etc. Other factors such as socio-demographic information, acceptability, preferences and attitude towards rattan as raw material will also be studied. The information will provide decision-makers with bases for rationale and viable decisions for future market-related actions. With the given market situation, information on raw material sources, prices, marketing practices, and preferences/acceptability of the product will be highlighted. Furthermore, future courses of action such as plantation development, technology adoption, market expansion and product development to be pursued could be based from the concrete and scientifically-generated information of this pre-project.

The pre-project will identify the future actions needed to enhance ASEAN regional cooperation through collaborative research in rattan development. Strategies will be formulated on how the rattan-manufacturing sector may be revitalized in addition to creating job opportunities through a comprehensive rattan market database.

The outputs of the pre-project will be used as basis for the formulation of a full project on the demonstration and application of rattan production and utilization technologies in the ASEAN region.

## PART II: THE PRE-PROJECT

### 1. Pre-Project Objectives

#### 1.1 Development objective

The project aims to assess the socio-economic acceptability, financial and market feasibility of rattan production and utilization technologies in the ASEAN member countries.

#### 1.2 Specific Objectives

- 1.2.1 To conduct a situational analysis of the rattan commodity and the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities and plantations in the ASEAN member countries.
- 1.2.2 To determine the future actions needed to enhance ASEAN regional cooperation through collaborative research in rattan sustainable development.

### 2. Justification

#### 2.1 Problems to be addressed

For several decades, timber is considered the only forest product of status owing to its significant monetary value. But deforestation and its negative impacts on the ecosystem and the environment have been instrumental in the shift toward non-timber forest products or NTFPs.

There are about 600 species of rattan in 13 genera, of which 10% are used for commercial purposes (Non-wood NEWS, March 2001). Indonesia has half of the 600 known species and is the world's largest rattan producer. In many Asian countries, rattan is second only to timber in economic importance. The cane is the most valuable part of rattan and furniture is the most popular product.

The Rome meeting in 2000 underscored the relevance of rattan for rural livelihood as a primary, supplementary and subsistence source of income for the rural dwellers. Rattan collection complements agriculture in terms of seasonal labor and source of capital for agricultural inputs.

Yet the plight of rattan production and utilization technologies cannot be overlooked. Knowledge on the taxonomy and biological aspects of some species is fragmentary. The genetic base of species is narrowing that eventually may lead to extinction. There are low returns to gatherers. There is a need for improved techniques in planting and management of rattan in degraded forests. Wide dissemination of available guidelines or information on its management to a wider base is deemed important. Furthermore, there is a need for adoption of improved technologies to reduce postharvest losses, biological deterioration, inefficient storage and processing techniques. Introduction of a standard grading mechanism or scheme is a must. Various stakeholders such as rattan growers, raw material collectors, manufacturers and traders aspire for an environment of policy and institutional support.

This pre-project proposal is a strategy to address the abovementioned concerns, in joint efforts with eight ASEAN countries to include: Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Brunei, Cambodia and Vietnam. The ASEAN institutions that will collaborate in the implementation of the project and the focal persons who may be tapped are as follows:

<i>Country</i>	<i>Institutions</i>	<i>Focal Person</i>
Indonesia	<b>Indonesian Biodiversity Conservation (REHATI)</b> Gedung Palia Jasa, 1 <sup>st</sup> Floor, Rm. 1C-2 Jalan Jenda, Gatat Subrato, Kav 32-34 Jakarta 12950, Indonesia Tel Nos. +21-522-8031; +21-522-8033	<b>Dr. Setijati D. Sastrapradja</b> Executive Director
Malaysia	<b>Forest Research Institute Malaysia</b> Kepong, 52109 Kuala Lumpur Tel. Nos. 603-6302101/6342633 Fax No. 603-6367753 603-6342825 (Director General)	<b>Dato' Dr. Abdul Razak Mohd. Ali</b> Director General Email: <a href="mailto:razak@frim.gov.my">razak@frim.gov.my</a> <b>Dr. Daniel Baskaran Krishnapillay</b> Director, Plantation Forestry Division Email: <a href="mailto:baskaran@frim.gov.my">baskaran@frim.gov.my</a>
Thailand	Minor Forest Product Section Silvicultural Research Division Forest Research & Development Office <b>Royal Forest Department Thailand</b>	Janya Jarearnrattawong Rattan Research Project P.B.4 Muey Trang 92000
Vietnam	<b>Nontimber Forest Product Research Center</b> Email: <a href="mailto:NTFP.project@Hn.Vnn.Vn">NTFP.project@Hn.Vnn.Vn</a>	<b>Le Thi Phi</b>
Lao PDR	<b>Department of Forestry</b> Vientiane, Lao PDR	<b>Mr. Bouaphanh Phanthavong</b> Senoir Officer, Head Technical Unit Forestry Resources Conservation Div. <b>Khampone Sengdala</b> Forestry Research Centre
Brunei	<b>Brunei National Herbarium Forestry Department</b> Brunei Forestry Centre Sungai Liang, Belait District KC1135 Brunei Darusalem	<b>Mr. Hussain Haji Osman</b>
Cambodia	<b>Forest and Wildlife Research Institute Department of Forestry and Wildlife</b> Ministry of Agriculture Forestry and Fisheries #40 Blvd. Nowdom Phnom Penh, Cambodia	<b>Mr. Vuthy Lic</b> E-mail: <a href="mailto:dfw.syphan@bigpond.com.Kh">dfw.syphan@bigpond.com.Kh</a>

## 2.2 Reasons for a Pre-Project

This pre-project will provide sufficient information on the demand and supply of rattan raw materials. A comprehensive situational analysis (prices, demand, supply, marketing practices, market flows, problems/opportunities, etc.) will provide a basis for a more detailed project proposal on rattan development where the demonstration and application of production and utilization technologies in ASEAN region will be highlighted and focused.

### 2.2.1 Reasons for selection

The experts' consultation in Rome last year recommended that the governments of countries with rattan resources be encouraged to:

- Include rattan as an integral component of national conservation policies, as well as in forest management plans and, where appropriate, by giving due attention to rattan in the national and relevant regional processes on Criteria & Indicators for Sustainable Forest Management;
- Strengthen national research programmes/activities through enhancing the network of rattan research and development activities, including establishment of "rattan scholarships";



- Develop and implement a national rattan strategy involving all stakeholders in a participatory process.

The Rome meeting concluded that there is wide variety of potential interventions that could assist the different stakeholder groups. Raw material producers and smallholders could be encouraged to, and assisted in, managing local resources on a more sustainable and productive basis through the establishment of community forest management practices. Potential interventions that might assist the industry include improving entrepreneurship and competitiveness; training of advisers; improving post-harvest treatment and quality control; market deregulation and improved market information; establishment of design centers; and trade fairs. Confirmation of these potential interventions may be realized after a thorough assessment of the market (supply, demand, price, practice and policies) situations existing for rattan.

#### 2.2.2 Lessons drawn from past evaluation

The Rome meeting last year reinforced the zeal of the proponents to sustainably manage the forest through partnership with the local community. Recognizing the high value of rattan and its potential in increasing productivity of forested areas and brushlands, rattan is considered as a major species for reforestation in the reforestation program of the country (Baja-Lapis, 1995). Furthermore, it was emphasized that rattan is one of the forest resources that should be the subject of research and development strategies for continuous and effective utilization. In line with the government's thrusts, the strategies for conservation as enumerated in the Philippine Master Plan for Forestry Development (1990) include the sustainable management of existing resources, utilization of noncommercial species, improved harvesting and utilization technologies, strict implementation of existing regulation and plantation establishment. It was further elaborated by Baja-Lapis in 1995 that the approach to conservation should be a combination of proper management and utilization.

#### 2.3 Target Beneficiaries

The direct beneficiaries of the proposed pre-project are the research and development institutions engaged in the production and utilization of rattan (i.e. ERDB, FPRDI, FRIM, INBAR) and trading entrepreneurs of rattan particularly in the ASEAN countries. The various entrepreneurs involved in rattan furniture industry (e.g. handicraft manufacturers, rattan plantation/farm owners, local/community rattan growers, etc.) will greatly benefit from this endeavor to illustrate and confirm the demand and supply situation for raw materials in the furniture and handicraft industries. It is also envisioned that through the participating ASEAN member countries, the status of the rattan industries may be improved or modified with the proper technology, information, economic and social interventions.

#### 2.4 Other relevant aspects

If the concerns mentioned in 2.1 (*problems to be addressed*) are not addressed, increased invasion of tropical forests is inevitable and the pressure on timber will remain very high. The opportunity cost of excluding rattan as a major forest product will be greater. However, there is a dearth of information on the aspects of rattan plantation management and sustainable development. With the recent strategies of adopting community-based forest management, there is a need to determine the financial viability of rattan development through community-based schemes.

To answer the current needs, there is a need to assemble a new set of technical guidelines on rattan. There is a need to determine the latest status (production and

utilization aspects, market demand and supply, market flows and trends) of rattan in the ASEAN region. We need to access rattan-manufacturing technologies (i.e. furniture designs) and other relevant technologies which are confined to research institutions and the private sectors, and then transfer them to various stakeholders.

It is the intent of this pre-project to document the need for raw materials in relation to the demand which may be a justification to promote rattan plantation establishment in the countryside. This will study the raw material base, possible generation of jobs, how to provide additional and increase the income of upland community and further restore the residual forest thus increasing its productivity and at the same token conserve woody plants and tree species.

### 3. Outputs

#### 3.1 Specific Objective No. 1

*To conduct a situational analysis of the rattan commodity and the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities and plantations in the ASEAN member countries.*

- Output 1.1 Socio-economics of rattan commodity in the ASEAN member countries analyzed.
- Output 1.2 Relevant production, harvesting, processing and utilization technologies in rattan development determined.
- Output 1.3 Market dimensions of rattan in local communities and plantations in the ASEAN member countries determined.

#### 3.2 Specific Objective No. 2

*To determine the future actions needed to enhance ASEAN regional cooperation through collaborative research in rattan sustainable development.*

- Output 2.1 ASEAN Regional Conference on Rattan Sustainable Development conducted
- Output 2.2 Proceedings of the ASEAN Regional Conference on Rattan Sustainable Development produced

Logical Framework Matrix (Objectives)

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>DEVELOPMENT OBJECTIVES</b></p> <p>The project aims to assess the socio-economic acceptability, financial and market feasibility of rattan production and utilization technologies in the ASEAN member countries.</p>	<p>The socio-economic acceptability, financial and market feasibility of rattan production and utilization technologies in the ASEAN region are assessed.</p>	<p>Pre-Project Report</p>	<p>Availability of requisite technical data; participation of rattan experts from ASEAN in the regional conference; cooperation between ASEAN members regarding the exchange of information on rattan; participation of key persons dealing with rattan</p>
<p><b>SPECIFIC OBJECTIVE 1</b></p> <p>To conduct a situational analysis of the rattan commodity and the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities, <b>both in natural forest and plantations</b> in the ASEAN member countries.</p>	<p>Surveys and discussion conducted</p>	<p>Report on benefit-cost analysis, market analysis, &amp; SWOT analysis; survey and discussion outputs</p>	<p>Participation of key persons dealing with rattan; cooperation between ASEAN members regarding the exchange of information on rattan; requisite technical data available</p>

<p><b>SPECIFIC OBJECTIVE 2</b> To determine the future actions needed to enhance ASEAN regional cooperation through collaborative research in rattan sustainable development.</p>	<p>ASEAN Regional conference conducted; discussion conducted</p>	<p>Report/documentation on ASEAN regional conference; Discussion outputs</p>	<p>Participation of rattan experts from ASEAN in the regional conference; cooperation between ASEAN members regarding the exchange of information on rattan; participation of key persons dealing with rattan; requisite technical data available</p>
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**Logical Framework Matrix (Outputs)**

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>OUTPUT 1.1</b> Socio-economics of rattan commodity in the ASEAN member countries analyzed</p> <p><b>OUTPUT 1.2</b> Relevant production, harvesting, processing and utilization technologies in rattan development determined</p> <p><b>OUTPUT 1.3</b> Market dimensions of rattan in local communities and plantations in the ASEAN member countries determined</p>	<p>Interaction with ASEAN key regulatory bodies and data gathering completed (surveys, personal interviews, focus group discussions, key informant interviews and secondary data collected)</p>	<p>Report on benefit-cost analysis, market analysis, &amp; SWOT analysis; survey and discussion outputs</p>	<p>Participation of key persons dealing with rattan; cooperation between ASEAN members regarding the exchange of information on rattan; coordination of DENR, DTI, &amp; various rattan stakeholders; requisite technical data available <b>with emphasis on management problems in natural forest</b></p>
<p><b>OUTPUT 2.1</b> ASEAN Regional Conference on Rattan Sustainable Development conducted</p> <p><b>OUTPUT 2.2</b> Proceedings of ASEAN Regional Conference on Rattan Sustainable Development produced</p>	<p>ASEAN Regional conference conducted; ASEAN member countries' report presented; discussion conducted</p>	<p>Report/proceedings/ documentation on ASEAN regional conference; paper presentations of the participants; discussion outputs</p>	<p>Participation of rattan experts from ASEAN in the regional conference; cooperation between ASEAN members regarding the exchange of information on rattan; participation of key persons dealing with rattan; requisite technical data available <b>including the appropriate silvicultural activities</b></p>

**Logical Framework Matrix (Activities)**

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Project Inception Meeting</b></p>	<p>Project inception meeting conducted</p>	<p>Minutes of the project inception meeting</p>	<p>Participation of the project staff</p>
<p><b>ACTIVITY 1.1</b> <i>Coordination with focal institutions/agencies in the participating ASEAN countries</i></p>	<p>Interaction between ASEAN key regulatory bodies involved on rattan was facilitated and conducted</p>	<p>Report/documentation on ASEAN key regulatory bodies interaction and collaboration</p>	<p>Cooperation between ASEAN members regarding the exchange of information on rattan; participation of key persons dealing with rattan</p>
<p><b>ACTIVITY 1.2</b> Data gathering (surveys, personal interviews, focus group discussions, key informant interviews and secondary data collection)</p>	<p>Data gathering conducted</p>	<p>Report on benefit-cost analysis, market analysis, &amp; SWOT analysis; survey and discussion outputs</p>	<p>Requisite technical data available; cooperation between ASEAN members regarding the exchange of information on rattan</p>

<b>ACTIVITY 1.3</b> Situational analyses of rattan commodity in the ASEAN region	Surveys and discussion conducted	Report on benefit-cost analysis, market analysis, & SWOT analysis; survey and discussion outputs	Participation of key persons dealing with rattan; Cooperation between ASEAN members regarding the exchange of information on rattan; Requisite technical data available
<b>ACTIVITY 2.1</b> ASEAN Regional Conference on Rattan Development	ASEAN Regional conference conducted; discussion conducted	Report/proceedings/documentation on ASEAN regional conference; discussion outputs	Participation of rattan experts from ASEAN in the regional conference; Cooperation between ASEAN members regarding the exchange of information on rattan; Participation of key persons dealing with rattan; Requisite technical data available
<b>ACTIVITY 2.2</b> Preparation of ASEAN Regional Conference on Rattan Development Proceedings	ASEAN Regional conference conducted; discussion conducted	Report/proceedings/documentation on ASEAN regional conference; discussion outputs	Technical papers, country reports, other

#### 4. Activities

A project inception meeting will be held to establish pre-project strategies and team member assignments. The project team will discuss and schedule the different activities that must be done to achieve the desired objectives of the pre-project. The key persons and focal institutions/agencies in the six ASEAN participating countries will be identified. How effective coordination and collaboration among the participating ASEAN countries will be decided by the team during the inception meeting. A clear and thorough discussion on the overview of the requirements and actions needed to assess the socio-economic acceptability, financial and market feasibility of rattan production and utilization technologies in the ASEAN region will be an important part of the inception meeting. A strategy to be able to conduct situational analyses of the rattan commodity and the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities, established markets and plantations in the ASEAN region will also be conceptualized during this activity. The main outputs of this activity shall be the determination of each pre-project team member of their own assignments and duties and a comprehensive action plan program for the entire duration of the pre-project.

##### 4.1 Outputs 1.1, 1.2 & 1.3

###### *Activity 1.1 Coordination with focal institutions/agencies in the participating ASEAN countries*

Throughout the project, project staff will work with professional staff and concerned rattan experts in the ASEAN member countries to facilitate the data gathering and to determine the right and latest fact on the situation of rattan commodity and socio-economic viability of its development. This activity will ensure smooth collaboration and strong partnership of ASEAN in rattan development.

###### *Activity 1.2 Data Gathering*

Data gathering will begin immediately after the approval of the ASEAN's key regulatory bodies involved. Primary data will be gathered through surveys, personal interviews, focus group discussions and key informant interviews. Secondary data collection may be

done through visit in websites of rattan-producing ASEAN countries and literature reviews.

*Activity 1.3 Situational analyses of rattan commodity in the ASEAN member countries (the socio-economics of production, harvesting, processing, utilization and market dimensions of rattan in local communities and plantations)*

Situational analyses on the socio-economic, production, harvesting, processing, utilization and market dimensions of rattan in local communities and plantations in ASEAN will be done using benefit-cost analysis, market trends analysis and SWOT (strengths and weaknesses, opportunities and threats) analysis. The result of this activity will be presented in the ASEAN Regional Conference on Rattan Development where the participants could check and correct the veracity of our findings and analyses.

#### 4.2 Outputs 2.1 & 2.2

*Activity 2.1 ASEAN Regional Conference on Rattan Sustainable Development*

This activity is considered as the culmination of all the activities in this pre-project. Each identified ASEAN member involved in this pre-project will be invited to present papers on the status of rattan resources in their country, their uses, extent and **management of natural stands and appropriate silvicultural activities related to sustainable development**. The proponents will present their findings during the 9-month pre-project implementation in this conference.

*Activity 2.2 Preparation of ASEAN Regional Conference on Rattan Sustainable Development Proceedings*

A proceeding of the *ASEAN Regional Conference on Rattan Development* will be produced taking into consideration all the papers presented, country reports, the highlights, and all major issues and concerns raised during the conference. **Also, the proceeding will include action program to be pursued by ASEAN member countries.**

#### 5. Work Plan

A pre-project completion report will be prepared and submitted to ITTO within three months after completion of the pre-project. ITTO representatives shall monitor project at their own discretion. Monitoring missions will be decided whether a mid-term evaluation is necessary. The date of any such evaluation will be agreed between ITTO and Project Management. Please see table 1 for the pre-project work plan.

Table 1. Pre-project work plan

ACTIVITY	RESPONSIBLE PARTY	M O N T H S			
		3	6	9	12
Project Inception Meeting	GOP	<input type="checkbox"/>			
Coordination with focal institutions/agencies in the participating ASEAN countries	GOP				
Data gathering on rattan commodity (markets, demand, supply, prices, opportunities/threats, etc.) through surveys, personal interviews, focus group discussions, key informant interviews and secondary data collection	GOP				
Situational analyses of rattan commodity in the ASEAN	GOP				

region					
ASEAN Regional Conference on Rattan Sustainable Development	GOP			<input type="checkbox"/>	
Report Writing (Proceedings, pre-project completion report)	GOP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**6. Budget**

A. Pre-Project Budget by Source (Please refer to Table 2)

B. Itemized List of Consumables and Capital Items (Please refer to Table 3)

Table 2. Pre-Project Budget by Source (in US \$ @ US \$1 = ₱ 50)

COMPONENT	TOTAL	SOURCE of FUND	
		ITTO	GOP*
10. Project Personnel 12. National Experts <sup>a/</sup> 13. Other Labor <sup>b/</sup> 14. Administrative Personnel <sup>c/</sup> <u>Component total</u>	83,600	21,000 18,600 <b>1,000</b> <u>40,600</u>	43,000 (in cash) 0 0 <u>43,000</u>
20. Sub-Contracts 21. Asean Regional Rattan Conference 22. Production and printing of information materials and proceedings of the ASEAN Conference <u>Component Total</u>	16,083	<b>11,083</b>  5,000 <u>16,083</u>	0   <u>0</u>
30. Duty Travel 31. Daily subsistence allowance 32. Transport costs/airfare <u>Component total</u>	22,981	<b>12,981</b> 10,000 <u>22,981</u>	0 0 <u>0</u>
40. Capital Items 41. Premises 42. Land 43. Capital Equipment <u>Component total</u>	37,800	0 0 10,800 <u>10,800</u>	20,000 (in kind)  7,000 (in kind) <u>27,000</u>
50. Consumable Items 54. Office supplies <u>Component total</u>	2,200	2,200 <u>2,200</u>	0 <u>0</u>
60. Miscellaneous 61. Communications 62. Utilities (lights and water) 63. Contingencies <u>Component total</u>	4,850	<b>500</b> 0 <b>1,000</b> <u>1,500</u>	350 (in kind) 3,000 (in kind) 0 <u>3,350</u>
Subtotal	167,514	<b>94,164</b>	73,350
80. ITTO Monitoring, Evaluation and Administration 81. Monitoring and Review Costs 82. Programme Support Costs <u>Component total</u>	8,300	2,500 5,800	0 <u>0</u>
<b>GRAND TOTAL</b>	<b>175,814</b>	<b>102,464</b>	<b>73,350</b>

\*GOP – government of the Philippines

a/ One (1) Overall Pre-Project Coordinator for 12 months of work; Two (2) pre-project leaders (PPLs) for 12 months of work

b/ Four (4) country focal persons (CFPs) for 9 months of work; One (1) research assistant (RA) for 12 months of work

c/ One (1) accounting personnel for 12 months of work; One clerk for 12 months of work

Table 3. Itemized list of Consumables and Capital Items

Items	Qty	Unit Cost (USD)	Total (USD)
<i>A. Capital Items</i>			
Laptop Computer	1 unit	2,000	2,000
Desktop Computer with printer, scanner		1,000	1,000
Sharp photocopying machine			
Thermal binder	1 unit	2,000	2,000
Digital camera	1 unit	1,000	1,000
Video camera	1 unit	800	800
Canon Camera	1 unit	2,000	2,000
Cellular phones	1 unit	1,000	1,000
	5 units	200/unit	1,000
<i>Sub-total</i>			<i>10,800</i>
<i>B. Consumable Items</i>			
Toner (for photocopying machine)	3 pcs	50/pc	150
Printer inks	6 pcs	50/pc	300
Computer table	1 unit	100/pc	100
Filing cabinet	1 unit	300/pc	300
Films, colored for slides and print	10 rolls	10/roll	100
Record book	7 pcs	5/pc	35
Clear book	10 pcs	15/pc	150
Technical pen	5 pcs	20/pc	100
Calculator (scientific)	4 pcs	40/pc	160
Transparencies, colored	5 boxes	20/box	100
Others (bond paper, folder, ballpen, pencil, etc.)			705
<i>Sub-total</i>			<i>2,200</i>
<b>Grand Total</b>			<b>13,000</b>



### PART III: TROPICAL TIMBER FRAMEWORK

#### 1. Compliance with ITTA 1994 Objectives

The pre-project addresses ITTO's objectives enumerated in c and f of the ITTO agreement in 1994 and conform to all the criteria (a, b, c, d, and e) stated in paragraph 19, Chapter 3 of ITTO manual. Since the implementing agencies do not have the financial capacity to execute the project, financial support is being solicited from ITTO. Thus, speed in project appraisal and approval of ITTO is further sought to optimize the benefits the project will bring to the people, to rattan species, to timber resources, to ITTO and to the environment.

##### 1.1 Compliance with ITTO Objectives

This pre-project proposal is compliant to objectives c and f of the 1994 International Tropical Timber Agreement:

- To contribute to the process of sustainable development. This will be achieved through the assessment of technical and financial feasibility of rattan as primary alternative for wood and its sustainable management in the natural stand.
- To promote and support research and development with a view of 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. The research and development of rattan plantations will definitely improve the raw material supply thus easing up pressures in the natural stands. The use of rattan species for reforestation and farming can be a vehicle for conservation of tropical timber because these can serve as nurse trees for rattans during the earlier stages of its growth.

##### 1.2 Compliance with ITTO Criteria

This proposed pre-project relates to **natural forest management** since rattan is an integral component in any tropical rainforest ecosystem. It is also related to **development of reforestation areas** by using rattan as plantation species.

#### 2. Compliance with ITTO Action Plan

The pre-project proposal complies with the Action Plan Goals of ITTO's Committee on Forestry Industry as stated in the ITTO Yokohama Action Plan 2002-2006. The *ASEAN Regional Conference on Rattan Sustainable Development* is highly relevant to the concern of the of the said Committee in the organization of workshops/seminars on the use of new and/or improved techniques and technology, including increased further processing. This is appropriate with the Committee's action plan to formulate research and development proposals which assist with the piloting and commercialization of new processing and manufacturing technologies.

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- Philippine Master Plan for Forestry Development. 1990. Department of Environment and Natural Resources.
- Plan of action towards the sustainable development of the rattan sector. In non-wood NEWS. No. 8, ISSN 1020-3435. FAO, March 2001.

**Annex A – Indicative Budget**

**ASEAN REGIONAL RATTAN CONFERENCE**

**Venue** : ERDB, College, Laguna, Philippines

**Date** : October or November 2003

**Number of Participants:** 12 ASEAN Delegates  
13 Philippine Delegates

<b>PARTICULARS</b>	<b>AMOUNT</b>
<b>MEALS</b> (25 pax for 2 days)	<b>450.00</b>
<b>ACCOMODATION</b> (\$50/day x 3 days x 12 pax)	<b>1,800.00</b>
<b>LAND TRANSPORTATION</b> (Fetch/convey participants to and from NAIA/\$50 x 2 days x 4 vehicles)	<b>400.00</b>
<b>AIRFARE</b> (12 ASEAN Delegates)	<b>6,925.00</b>
<b>SUBSISTENCE ALLOWANCE</b> ASEAN Delegates - \$42 x 12 pax x 2 days = 1,008 Philippine Delegates = 500.00	<b>1,508.00</b>
<b>GRAND TOTAL</b>	<b>11,083.00</b>

## ANNEX B – PROFILE OF THE EXECUTING AGENCY

### **Ecosystems Research and Development Bureau (ERDB)**

Forestry Campus, UP Los Baños, College, Laguna 4031, Philippines

Telephone Numbers: (63-49) 536-2229; 536-2509; 536-3628; 536-2269

Fax Number: (63-49) 536-2850

Email Addresses: [erdb@laguna.net](mailto:erdb@laguna.net); [erdbdir@lahuna.net](mailto:erdbdir@lahuna.net)

#### 3.1 The Expertise of the Executing Agency

Being the principal research unit of the Department of Environment and Natural Resources (DENR), ERDB is responsible for assembling research results, scientific information and technologies on the management of various ecosystems and natural resources. Specifically, these are the forest, grassland and degraded areas, upland farms, freshwater and coastal zone ecosystems. Its vision is to achieve excellence in research and development (R&D) on environment and natural resources towards year 2000 and beyond. The Bureau's mission is to provide relevant technology and information through research towards sustainability and enhanced productivity of the natural resources and protection of the environment, for the improvement of the quality of life of the Filipino people. ERDB has the advantage in term of networking with DENR field offices nationwide in terms of data collection since it has Ecosystems Research and Development Services (ERDS) in all regions.

ERDB mandates are as follow:

- \* Formulates and recommends an integrated R&D program relating to Philippine ecosystems and natural resources such as minerals, lands, forests, as holistic and interdisciplinary fields of inquiry;
- \* Assists the Secretary of DENR in determining a system of priorities for the allocation of resources to various technological research programs of the department;
- \* Provides technical assistance in the regional implementation and monitoring of the aforementioned research programs;
- \* Generates technologies and provides scientific assistance in the R&D of technologies relevant to the sustainable use of Philippine ecosystems and natural resources; and
- \* Assists the secretary in the evaluation of the effectiveness of the implementation of the integrated research program.

Organization: Please refer to the ERDB Organizational Chart in the next page.

**In year 2001**, ERDB conducted 54 projects/studies broken down under the R & D programs as follows:

Researches/Studies per Research Division	No. of Projects	Source of Fund	
		ERDB	External
Forest Ecosystem	19	12	7
Grassland & Degraded Areas Ecosystem	12	7	5
Coastal & Freshwater Ecosystem	8	0	8
Upland Farms Ecosystem	13	11	2
Technology Transfer	2	1	1

Out of these 54 projects, 31 were regularly funded by ERDB while the rest were externally funded. The external sources of fund and their corresponding number of projects were: European Community (EC) through ORSTOM, France – 1; PCARRD – 5; ACIAR – 1; PEENRA – 3; FASPO (Foreign Assisted Special Project Office), DENR – 2; OECF-NFDO (Overseas Economic Cooperation Fund – National Forestation Development Office) – 1; Teraoka Farms – 1; NRCP (National Research Council of the Philippines) – 1; DA-BAR (Department of Agriculture-Bureau of Agriculture Research) with ERDB counterpart – 1; PEA – 3; LLDA (Laguna Lake Development

Authority) – 1; FORD – 1; WRDP – 1; SANREM-CRMP – 1; CBRM (Community-Based Resource Management) 1; ARCBC (ASEAN Regional Centre for Biodiversity Conservation) –1; and CFPQ – 2.

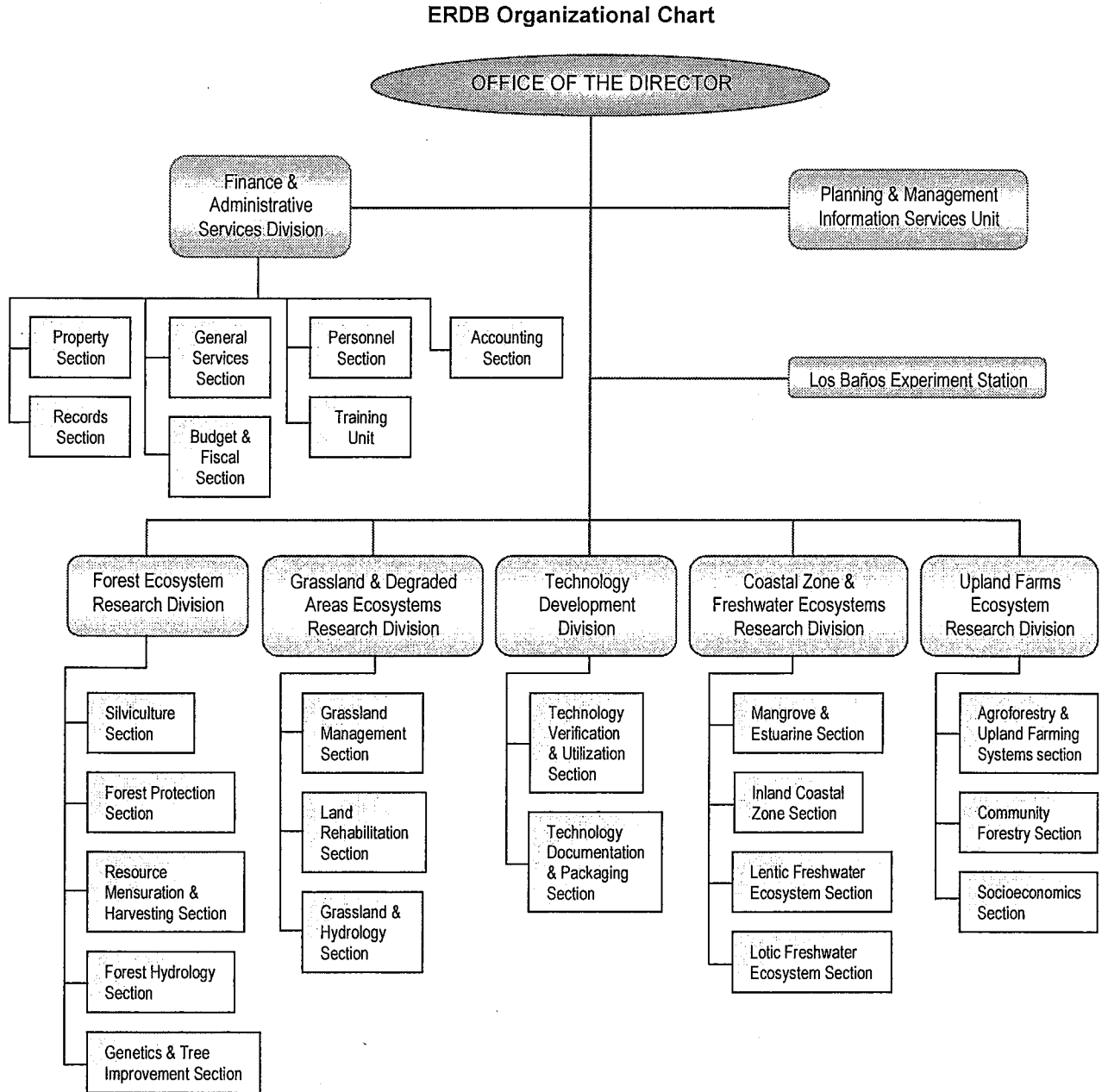


Figure 2. ERDB organizational chart

**For year 2000**, 38 research projects were implemented. Six of these were completed and 14 were new studies. For the forest ecosystem, 13 studies were carried out. Most of the ongoing studies on this ecosystem focused on the production of improved seeds and planting materials of different forest tree species. Other studies dealt on the analysis of supply and demand for wood and major wood products in the Philippines; the economic policy implications of carbon storage

and sequestration; and the production and plantation management of medicinal plants in the Philippines.

Nine studies were pursued under the upland farms ecosystem. Three of these were APAN studies; four were gender-related; and two were about agroforestry technologies.

Ten studies were continuously implemented for the grassland and degraded areas ecosystems. Research projects focused on different grassland species, tree species for reforestation and bamboos.

For the coastal zone and freshwater ecosystems, six studies were implemented. The studies dealt on mangrove plantations; gravel and sand extraction and related mining activities on river systems; and on the Laguna Lake and its tributaries.

In the technology development, three studies were implemented. Two were about technology transfer and one was a continuing project on the identification and classification of different research output/information under different ecosystems.

**1n 1999**, ERDB carried 38 researches and four of these were completed during the year. Eleven studies on forest ecosystem were pursued. For the upland farms ecosystem, six studies were carried out. For the coastal zone and freshwater ecosystems, four ongoing studies were pursued. Under the technology development was an ongoing data analysis on the survey of ERDB publications' readers.

### 3.2 The Infrastructure of the Executing Agency

ERDB is housed in a three-story building with a floor dimension of 72.50 m X 40.50 m located at UPLB Forestry Campus, College, Laguna. This building houses five main divisions – the administrative and planning offices, the office of the director and other support units like accounting, budget and auditing offices. Other facilities include the following:

- Library
- Microcomputer Laboratory
- Los Baños Experiment Station
- Printing Unit
- Bambusetum
- Rattan Gene Bank
- Laboratory Facilities
  - ☞ Chemistry – plant tissue and water quality analyses
  - ☞ Soil – soil physical, chemical and sedimentation analyses
  - ☞ Genetics and tissue culture – genetic improvement of species; mass production of planting materials through tissue culture and analysis through electrophoresis
  - ☞ Botany 'cum' herbarium – storage of herbarium specimen for educational purposes; provides assistance in the identification of trees and other species
  - ☞ Pathology – analysis, identification and control of diseases attacking seedlings and forest plantations
  - ☞ Entomology – identification and control of insect pests attacking seedlings and plantations
  - ☞ Zoology – showcases stuffed animal for educational purposes
  - ☞ Seed - seed

### 3.3 Budget

ERDB's budget for the year 2001 was ₱ 70,297,000.00. In year 2000, the Bureau's budget amounted to ₱77,166,000.00. For calendar year 1999, ERDB's total financial resource was ₱91,517 ,365.00.

### 3.4 Personnel

ERDB has more than 150 personnel in the forestry-related fields out of its 301 total staff. This was composed of 239 regular employees and 62 casuals. The number of experts with post-graduation degrees is 83. Eighteen (18) personnel have completed their doctoral degrees while seven are ongoing. Forty (40) staff has earned their master's degree while 18 are still pursuing.

## ANNEX C – CURRICULA VITAE OF THE KEY STAFF

### **CELSO P. DIAZ, M.Sc.**

Born on 09 January 1941 at Sta. Cruz, Marinduque  
Filipino

Post-Masteral Training in Natural Resources Economics  
University of New England, Australia  
March to November 1984

Master of Science in Wildland Resources Science (1977-79)  
(Major Fields: Forest Resources Economics)  
University of California, Berkeley, California, U.S.A.

Certificate in Development Economics (1971-72)  
UP School of Economics, Diliman, Quezon City

Bachelor of Science in Forestry (May 1966)  
University of the Philippines Los Baños

He is the Director of the Ecosystems Research and Development Bureau (ERDB), research arm of the Department of Environment and Natural Resources (DENR) since 1996. Prior to his present position as Director IV and Career Executive Service Officer (CESO) III of the Career Executive Service Board (CESB) of the Office of the President, he was the Regional Technical Director for Research, National Capital Region, DENR from 1989 to 1995. His previous assignments were: Assistant Regional Director, Region IV, Bureau of Forest Development (BFD), Department of Natural Resources (DNR), 1986-88; Chief Planning Officer, Forest Research Institute (FORI); Division Chief, Socio-Economics Division, FORI (1975-1985); Senior Forest Economist, BFD, DNR (1970-74); and Faculty Member, Department of Forestry Extension, College of Forestry, UPLB (1966-69).

He had served as Chairman of the Board of Examiners for Foresters (1989-98) under the Professional Regulation Commission, Office of the President, Republic of the Philippines. His other government responsibilities include: Vice-Chair, Technical Advisory Committee, Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Department of Science and Technology (DOST); Member, Technical Review and Assessment Committee, (PCAMRD), DOST; and Member as representative of Environment Sector, National Committee on Biosafety of the Philippines (NCBP), 1998 to present.

He is also the Philippine Focal Person (1996 to present) to International Bamboo and Rattan (INBAR) Council which holds office at Beijing, China. In addition, he is the Philippine Representative since 1996 to the Scientific Planning Group, Asia-Pacific Research for Global Change (APN) whose office is in Kobe, Japan. He had represented the Philippines in various conferences, seminars, symposia and fora abroad.



## ANNEX C – CURRICULA VITAE OF THE KEY STAFF

### AIDA B. LAPIS, Ph.D.

Born on 30 July 1951 at Balara, Quezon City  
Filipino

Doctor of Philosophy in Forest Biological Sciences  
(Major Fields: Forest Biological Sciences; Forestry Ecology and Silvics)  
University of the Philippines Los Baños (UPLB)

Master of Science in Forestry, UPLB  
(Major Fields: Forest Biological Sciences; Plant Taxonomy)

Bachelor of Science in Forestry, UPLB  
(Major Field: Wood Sciences and Technology)

She presently holds a Section Chief position in ERDB and at the same time designated as the Chief of the Research and Development branch of the ASEAN Regional Centre for Biodiversity Conservation (ARCBC), an EU assisted project, executed by the DENR. She manages research grant programme for participating ASEAN member countries, supervises the conduct of in-house researches, arranges and coordinates scientific meetings in the ASEAN region.

She has 30 years of research experience, in the field of forest production, particularly in taxonomy, forest ecology, and silvics. She engaged in bamboo and rattan production research geared towards plantation establishment and their genetic conservation. Her researches were concentrated on the taxonomy of Philippine rattans, ecology, cultivation and silviculture. She also worked on the propagation of important minor forest species like bamboo, *nito* and other bast fibers producing forest plants. She has pioneered in establishing rattan gene banks in a living garden in Mt. Makiling, Los Baños, Laguna and Malaybalay, Bukidnon.

She had published 22 technical papers and 13 of them dealt with rattan. Six among her 20 semi-technical papers published were about rattan. Some of the publications are listed below:

1. *Rattan Genetic Resources in the Philippines*. In Bamboo and Rattan Genetic Resources in Certain Asian Countries. Vivekanandan et al (Eds). 1998. IPGRI-APO Serdang, Malaysia.
2. *Rattan Taxonomy and Ecology in the Philippines*. Rao, A.N. and V.Ramanatha (Eds) 1997. In Rattan-taxonomy-ecology, Silviculture, Conservation, Genetic Improvement and Biotechnology. Proceedings of Training Course 'cum' Workshop. Sarawak, Sabah. p.105-110.
3. *Philippine Rattan Resources, Production and Research*. Rao, A.N. and V.Ramanatha (Eds) 1997. In Rattan-taxonomy-ecology, Silviculture, Conservation, Genetic Improvement and Biotechnology. Proceedings of Training Course 'cum' Workshop. Sarawak, Sabah. p. 207-206.