

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PRE-PROJECT DOCUMENT

TITLE	TRAINING NEEDS ANALYSIS FOR THE BUILDERS' WOODWORKS INDUSTRY IN THE PHILIPPINES
SERIAL NUMBER	PPD 133/07 Rev.1 (I)
COMMITTEE	FOREST INDUSTRY
SUBMITTED BY	GOVERNMENT OF THE PHILIPPINES
ORIGINAL	ENGLISH

SUMMARY

The pre-project aims to determine the training needs of the builders' woodworks industry in the Philippines. Specifically, it shall determine the current level of skills in the builders' woodworks industry and compare it against standards required for each job/position. Target beneficiaries of the project are builders' woodworks associations and micro- and small enterprises engaged in the manufacture of builders' woodworks who are not affiliated with any industry association. Industry associations and government agencies engaged in manpower development shall be tapped to provide inputs in the formulation of standards and identification of training needs.

EXECUTING AGENCY	FOREST PRODUCTS RESEARCH AND DEVELOPMENT INSTITUTE (FPRDI)	
DURATION	12 MONTHS	
APPROXIMATE STARTING DATE	UPON APPROVAL	
PROPOSED BUDGET AND OTHER FUNDING SOURCES	Source	Contribution in US\$
	ITTO	79,199
	Gov't of the Philippines	8,050
	TOTAL	87,249

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PART I. CONTEXT

1. Origin

The Forest Products Research and Development Institute (FPRDI) is the research and development arm on forest products utilization of the Department of Science and Technology (DOST). Established in 1954, it is mandated to: (a) conduct basic and applied research and development on forest utilization based on the needs of the forest-products using and allied industries and the general public; (b) undertake the transfer of completed research and development results to end-users via linkages; and (c) provide technical service and training to various clientele.

In response to the government's call for science and technology to serve as the foundation for future economic development in the Philippines, FPRDI has intensified the provision of technical assistances and trainings to its intended clientele. To be able to provide these services to a greater number of beneficiaries, FPRDI is seeking ITTO's support in enhancing the capabilities of targeted forest-based industry sectors. This will not only increase the productivity of the identified industry sectors but also serve as a catalyst for economic development.

2. Sectoral Policies

The Medium Term Philippine Development Plan defines the following as the Philippine government's visions and goals: macroeconomic stability with equitable growth based on free enterprise; agriculture and fisheries modernization with social equity; comprehensive human development; and good governance. In support of this, the Department of Science and Technology has formulated the National Science and Technology Plan (NSTP), a long-term indicative plan that gives the direction for the development of science and technology for the period 2002 – 2020.

Part of the NSTP is a medium-term component that specifies the strategic programs to be undertaken that will serve as starting points in its implementation, namely: technology transfer; human resource development; and S & T promotion, information dissemination, advocacy and linkages.

One of the three major technology transfer programs in the NSTP is the Small and Medium Enterprises Technology Upgrading Program (SET-UP) which aims to: (a) improve the viability of micro, small and medium enterprises; and (b) enhance their competitiveness through the infusion of technologies, technical assistance and manpower development.

The Department of Environment and Natural Resources, in its PFP 2001 Policy Statements, identified strategic interventions that the Philippine government can implement in areas of poverty reduction, research and development and good governance. It is the responsibility of the government to promote efficient and environment friendly forest harvesting and utilization, development of competitive

forest-based industries, ensure sustainable raw material supply and encourage value-added processing and manufacturing to boost rural employment and economy while satisfying the local and export markets for forest products. This can be achieved through research, development and information dissemination.

The proposed pre-project, which aims to determine the training needs of the builders' woodworks industry sector in the Philippines, is a tool needed for the implementation of manpower development programs that will help the selected industry sector improve its productivity and enhance product quality. This is in line with the objectives of the DOST's SET-UP and the DENR's policy statement stated above.

3. Programmes and Operational Activities

Part of FPRDI's development agenda for CY 2005 – 2010 is the enhancement of the competitiveness of the builders' woodworks industry in the Philippines. This is being done thru its program on Housing Technologies. The program focuses on the development of composite products and innovative designs on prefabricated shelters, builders' woodworks, housing components and utilities made from wood and other non-wood forest products, and the performance evaluation of these designs through destructive and non-destructive tests.

PART II. THE PRE-PROJECT

1. Pre-Project Objectives

1.1 Development Objectives

The pre-project aims to determine the training needs of the builders' woodworks industry in the Philippines.

1.2 Specific Objectives

Specific Objective 1. **To determine the current level of skills and identify required standards for each position/level in the builders' woodworks industry.**

Specific Objective 2. **To determine training needs of the builders' woodworks industry by identifying gaps between required standards and current skills level.**

2. Justification

2.1 Problems to be addressed

Builders' woodworks, or in trade, builders' joinery and carpentry of wood, include doors and windows/and their frames, jambs or thresholds, parquet or tiles, and joiner and carpentry, such as balusters and mouldings. These wood products have two purposes: as essential components of the house and as creative designs or works of art for residential and contract applications (PCARRD, 1999). Builders' woodwork is one of the categories under which secondary processed wood products (SPWP) are classified, aside from wooden furniture and parts; mouldings; cane and bamboo furniture and parts; and other SPWP (packing, boxes and the like; casks, barrels, vats and other cooper's products; picture frames; table/kitchenware and other tools, handles, brooms and other manufactured products) (ITTO, 2004). In 2004, the Philippines' export of builders' woodworks amounted to US \$ 92,358,389 (FOB), with Japan, the United States of America, Belgium and Taiwan as the top 4 markets.

In 2001, a survey was conducted by the Furniture and Handicraft Industries Research and Development Program (FHIRDP) of FPRDI to examine the current condition, trends and performance of a builders' woodworks association located in the island of Luzon. One of the issues identified was the lack of woodworking technologies needed to improve the industry's productivity. New woodworking technologies have not yet been fully accessed by the industry despite the existence of government and non-government institutions that offer the needed trainings and manpower development activities (Moredo, 2002). The same study stated that among the government assistance needed by the association was the provision of technical assistance/services. Technical assistance/services may be in the form of consultancy or advisory services, technology installation or manpower training.

While results of the survey were based on information gathered from one association alone, the results may be considered as reflective of the Philippine builders' woodworks industry as a whole. More than 90% of the firms engaged in the production of builders' woodworks are micro- and small enterprises and more often than not, are not part of any organized association.

2.2 Reasons for a Pre-Project

Before any technical assistance program for the builders' woodworks industry can be implemented, an analysis of the industry's needs should be done first. The pre-project shall assess the viability of implementing a capacity building program for the industry, with emphasis on determining the training needs of the target sector through a gap analysis of the current situation. The pre-project would also identify the manpower skills that have to be developed and how they would benefit the builders' woodworks industry. Based on these information, a full project proposal shall be prepared and submitted.

2.3 Target Beneficiaries

Main target beneficiary of the project is the builders' woodworks industry in the Philippines and the micro- and small enterprises engaged in the manufacture of builders' woodworks that are not affiliated with any industry organization. **The Department of Trade and Industry (DTI), in its website, stated that there are 35 registered exporters of builders' woodworks, majority of which are located in Metro Manila and the provinces of Bulacan, Cavite and Laguna. However, these are only the registered exporters, which are mostly medium to large scale enterprises. In the province of Rizal alone, there are 106 small and medium enterprises (SMEs) engaged in the production of builders' woodworks. A listing obtained from DTI shows that there are 31 and 27 registered builders' woodworks manufacturers in Regions V and VI, respectively. Assuming a sample size of 50% of the total builders' woodworks manufacturers, the project aims to gather information from at least 100 SMEs engaged in the manufacture of builders' woodworks.**

2.4 Other Relevant Aspects

FPRDI maintains close linkages with the Department of Trade and Industry and the national and local regional chapters of the Chamber of Furniture Industries of the Philippines. It is thru these linkages that the project aims to reach the intended project beneficiaries.

The Department of Trade and Industry, through its *One-Town, One-Product Program*, has identified several municipalities in the Philippines with builders' woodworks as their main product. In areas where the firms engaged in builders' woodworks manufacture are not organized into associations, the assistance of the Department of Trade and Industry shall be solicited.

Many firms engaged in the manufacture of builders' woodworks are also engaged in the production of furniture and are members of the Chamber of Furniture Industries of the Philippines (CFIP). FPRDI has had several collaborative projects with the CFIP, both on the national and regional levels, so requesting their assistance in the implementation of this project will not be a problem.

The Technical Education and Skills Development Authority (TESDA), a government agency tasked with establishing a quality-assured Technical Vocational Education and Training system, is in the process of developing a TESDA Occupational Qualification and Certification System (TOQCS) to ensure that vocational education and training graduates have the desired skills and knowledge competencies required by the industry. TESDA has started formulating the TOQCS for the furniture industry. Since the furniture industry has similar if not the same competency requirements as in the builders' woodworks industry, TESDA shall also be tapped to provide inputs in determining the standards to be used.

3. Outputs

3.1 Specific Objective 1. To determine the current level of skills and identify required standards for each position/level in the builders' woodworks industry.

- **Output 1.1** **Inventory of existing positions/jobs in the builders' woodworks industry, including actual work performed by each position**
- **Output 1.2** **Formulate standards for each position/level in the builders' woodworks industry thru a job and task analysis**

3.2 Specific Objective 2. To determine training needs of the builders' woodworks industry by identifying gaps between required standards and current skills level.

- **Output 2.1** **Identified training needs**
- **Output 2.2** **Project proposal on capacity building for the builders' woodworks industry**

4. Activities

Output 1.1 Inventory of existing positions/jobs in the builders' woodworks industry, including actual work performed by each position

Activity 1.1.1 Identify target firms/industry associations

- Activity 1.1.2 Preparation of questionnaire
- Activity 1.1.3 Conduct of survey
- Activity 1.1.4 Data collation and interpretation
- Activity 1.1.5 Prepare report on inventory of positions/jobs and actual work performed by each position

Output 1.2 Formulate standards for each position/level in the builders' woodworks industry thru a job and task analysis

Activity 1.2.1 Collate and review available materials on job analysis (duties and tasks required for each position)

Activity 1.2.2 Collate and review available materials on task analysis (breakdown of each task into component steps – safety elements, standards in knowledge, attitudes, skills and habits)

Activity 1.2.3 Formulate job and task analysis in consultation with National Experts and Consultants

Activity 1.2.4 Prepare report on job and task analysis

Output 2.1 Identified training needs

Activity 2.1.1 Identify gaps between required standards and current skills level

Activity 2.1.2 Determine training needs based on identified gaps

Activity 2.1.3 Prepare report on identified training needs

Output 2.2 Project proposal on capacity building for the builders' woodworks industry

Activity 2.2.1 Conduct a seminar-workshop involving stakeholders to present and validate findings of TNA

Activity 2.2.2 Prepare project proposal on capacity building for the builders' woodworks industry to address training needs identified

5. Work Plan

Activities	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
SPECIFIC OBJECTIVE 1												
Output 1.1 Inventory of existing positions/jobs in the builders' woodworks industry, including actual work performed by each position												
1. Identify target firms/industry associations												
2. Preparation of questionnaire												
3. Conduct of survey												
4. Data collation and interpretation												
5. Prepare report on inventory of positions/jobs and actual work performed by each position												
Output 1.2 Formulate standards for each position/level in the builders' woodworks industry thru a job and task analysis												
1. Collate and review available materials on job analysis												
2. Collate and review available materials on task analysis												
3. Formulate job and task analysis in consultation with National Experts and Consultants												
4. Prepare report on job and task analysis												
SPECIFIC OBJECTIVE 2												
Output 2.1 Identified training needs												
1. Identify gaps between required standards and current skills level												
2. Determine training needs based on identified gaps												
3. Prepare report on identified training needs												
Output 2.2 Project proposal on capacity building for the builders' woodworks industry												
1. Conduct a seminar-workshop involving stakeholders to present and validate findings of TNA												
2. Prepare project proposal on capacity building for the builders' woodworks industry to address training needs identified												

6. Budget

6.1 Overall Project Budget by Specific Objective and Outputs

OUTPUTS/ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							GRAND TOTAL
	10. Project Personnel	20. Sub- contracts	30. Duty Travel	40. Capital Items	50. Con- sumable Items	60. Miscel- laneous	Quarter Year	
Output 1.1 Inventory of existing positions/jobs in the builders' woodworks industry, including actual work performed by each position								
Activity 1.1.1 Identify target firms/industry associations	2,082	-	800	-	500	-	Q1, Y1	3,382
Activity 1.1.2 Preparation of questionnaire	3,364	-	-	-	500	-	Q1, Y1	3,864
Activity 1.1.3 Conduct of survey	6,246	-	10,000	-	1,000	500	Q1, Q2, Y1	17,746
Activity 1.1.4 Data collation and interpretation	3,082	-	-	2,000	500	-	Q2, Q3, Y1	5,582
Activity 1.1.5 Prepare report on inventory of positions/jobs and actual work performed by each position	3,082	-	-	-	500	-	Q3, Y1	3,582

OUTPUTS/ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							GRAND TOTAL
	10. Project Personnel	20. Sub- contracts	30. Duty Travel	40. Capital Items	50. Con- sumable Items	60. Miscel- laneous	Quarter Year	
Output 1.2 Formulate standards for each position/level in the builders' woodworks industry through a job and task analysis								
Activity 1.2.1 Collate and review available materials on job analysis	564	-	500	-	-	-	Q1, Q2, Y1	1,064
Activity 1.2.2 Collate and review available materials on task analysis	564	-	500	-	-	-	Q1, Q2, Y1	1,064
Activity 1.2.3 Formulate job and task analysis in consultation with National Experts and Consultants	10,928	-	500	-	-	500	Q2, Q3, Y1	11,928
Activity 1.2.4 Prepare report on job and task analysis	2,082	-	-	-	-	-	Q3, Y1	2,082
SPECIFIC OBJECTIVE 1 TOTAL	31,994	-	12,300	2,000	3,000	1,000		50,294

OUTPUTS/ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS						GRAND TOTAL	
	10. Project Personnel	20. Sub- contracts	30. Duty Travel	40. Capital Items	50. Con- sumable Items	60. Miscel- laneous		Quarter Year
Output 2.1 Identified training needs								
Activity 2.1.1 Identify gaps between required standards and current skills level	1,464	-	-	-	200	-	Q3, Q4, Y1	1,664
Activity 2.1.2 Determine training needs based on identified gaps	1,682	-	-	-	200	-	Q3, Q4, Y1	1,882
Activity 2.1.3 Prepare report on identified training needs	1,064	-	-	-	500	-	Q4, Y1	1,564
Output 2.2 Project proposal on capacity building for the builders' woodworks industry								
Activity 2.2.1 Conduct a seminar- workshop involving stakeholders to present and validate findings of TNA	2,364	-	10,000	-	1,000	1,000	Q4, Y1	14,364
Activity 2.2.2 Prepare project proposal on capacity building for the builders' woodworks industry to address training needs identified	3,364	-	-	-	200	-	Q4, Y1	3,564
SPECIFIC OBJECTIVE 2 TOTAL	9,938	-	10,000	-	2,100	1,000		23,038

OUTPUTS/ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS										GRAND TOTAL	
	10. Project Personnel	20. Sub- contracts	30. Duty Travel	40. Capital Items	50. Con- sumable Items	60. Miscel- laneous	Quarter Year					
NON-ACTIVITY BASED EXPENSES												
1. Fuel and Utilities	-	-	-	-	2,000 (E)	-	Y1					2,000 (E)
2. Auditing	-	-	-	-	-	1,000 (E)	Y1					1,000 (E)
Sub-total (ITTO)	41,932	-	22,300	2,000	5,100	2,000						73,332
Programme Support Costs												5,867
Sub-total (E. Agency)	4,000	-	-	-	2,000	1,000						7,000
Executing Agency Management Costs												1,050
TOTAL	45,932	-	22,300	2,000	7,100	3,000						87,249

(I) - contribution of the ITTO

(E) - contribution of the Executing Agency/Host Government

PROJECT BUDGET BY SOURCE - ITTO

Budget Components	TOTAL
10. Project personnel	41,932
20. Sub-contracts	-
30. Duty travel	22,300
40. Capital items	2,000
50. Consumable items	5,100
60. Miscellaneous	2,000
Sub-total 1	
80. ITTO Monitoring, Evaluation and Administrative Costs	
81. Monitoring and Review Costs (effective estimation)	-
82. Evaluation Costs (effective estimation)	-
Sub-total 2	-
83. <u>Programme Support Costs (8% of ITTO total contribution)</u>	<u>5,867</u>
ITTO TOTAL	79,199

PROJECT BUDGET BY SOURCE – E. AGENCY/HOST GOVERNMENT

Budget Components	TOTAL
10. Project personnel	4,000
20. Sub-contracts	-
30. Duty travel	-
40. Capital items	-
50. Consumable items	2,000
60. Miscellaneous	1,000
70. Executing Agency Management Costs (15% of Total of Overall Project Budget by Activity)	1,050
EXECUTING AGENCY/HOST GOVERNMENT TOTAL	8,050

CONSOLIDATED PROJECT BUDGET
(To be completed in detail by source of finance)

Budget Components		TOTAL
10.	Project Personnel	
	11. National Experts	24,600
		4,000 (E)
	12. National Consultants	10,000
	13. Other labour	7,332
	14. Fellowships and Training	-
	15. International Experts	-
	16. International Consultants	-
	19. Component Total	45,932
20.	Sub-Contracts	
	21. Sub-contract (with A)	-
	22. Sub-contract (with B)	-
	29. Component Total	-
30.	Duty Travel	
	31. Daily Subsistence Allowance	10,000
	32. International Travel	-
	33. Transport Costs	12,300
	39. Component Total	22,300
40.	Capital Items	
	41. Premises	-
	42. Land	-
	43. Vehicles	-
	44. Capital Equipment	2,000
	49. Component Total	2,000
50.	Consumable Items	
	51. Raw materials	-
	52. Spares	-
	53. Fuel and Utilities	1,500
		2,000 (E)
	54. Office Supplies	3,600
	59. Component Total	7,100
60.	Miscellaneous	
	61. Sundry	2,000
	62. Auditing	1,000 (E)
	63. Contingencies	-
	69. Component Total	3,000
70.	Executing Agency Management Cost	1,050 (E)
	79. Component Total	1,050
	SUB-TOTAL	81,382
80.	ITTO Monitoring, Evaluation and Administration	
	81. Monitoring and Review Costs	-
	82. Evaluation Costs	-
	83. Programme Support Costs	5,867
	89. Component Total	5,867
100	GRAND TOTAL	87,249

7. Literature Cited

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International Tropical Timber Organization. 2004. Annual Review and Assessment of the World Timber Situation

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Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD). 1999. The Philippines Recommends for Builders' Woodworks. Los Baños, Laguna

PART III. TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTO Objectives

This project addresses the following objectives of ITTO:

- c. To contribute to the process of sustainable development;
- f. To 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
- i. To promote increased and further processing of tropical timber from sustainable sources in producing member countries with a view to promoting their industrialization and thereby increasing their employment opportunities and export earnings.

2. Relationship to ITTO Yokohama Action Plan and priorities

The project also addresses the following goals established by the Committee on Forest Industry.

Goal 1. Promote increased and further processing of tropical timber from sustainable sources

(5) Encourage members and assist them, where appropriate to:

- Organize workshops/seminars on the use of new and/or improved techniques and technology, including increased further processing
- Undertake sector-wide training needs analyses; development of training strategies, training facilities and course curricula; preparation of training manuals and delivery of training courses
- Improve institutional efficiency and effectiveness through sector-wide training needs analyses; develop training strategies, training facilities and course curricula; prepare training materials; and deliver training courses.

Goal 2. Improve industry's efficiency of processing and utilization of tropical timber from sustainable sources

- (1) Develop, publish and disseminate information on increasing utilization efficiency and the reduction of losses and waste through the production chain

- (2) Promote increased awareness and utilization of existing information on wood properties and end-use requirements

ANNEX A – PROFILE OF THE EXECUTING AGENCY

3.1 The Expertise of the Executing Agency

The Forest Products Research and Development Institute (FPRDI) is the research and development arm on forest products utilization of the Department of Science and Technology (DOST), the body that coordinates and manages the Philippines' science and technology system.

MANDATE

- Conduct basic and applied research and development on forest products utilization based on the needs of the forest product-using and allied industries and the general public.
- Undertake the transfer of completed research and development results to end users via linkages.
- Provide technical services and training to various clientele.

MISSION

To generate, improve and transfer appropriate technologies and information on efficient utilization of forest-based products to make local industries more competitive in the domestic and global markets and to benefit the general public.

VISION

A sustainable forest-based industry that is able to produce economically competitive and environment-friendly commodities that contribute to socio-economic development and support the disadvantaged sectors of society.

OBJECTIVES

- To generate scientific knowledge on forest-based materials critical to the development of production technologies.
- To ensure the global competitiveness of ecologically friendly forest-based products.
- To enhance efficiency and effectiveness of existing forest-based industries and assist in the establishment of new enterprises.

3.2 The Infrastructure of the Executing Agency

The FPRDI has research facilities and laboratories for various areas of wood research such as materials testing; quality control; calibration; wood identification and analysis; minor forest products identification and analysis; chemical analysis; drying/seasoning; preservative treatment; pulping; bleaching; charcoal production; packaging; fire resistance; furniture testing and sawmilling. A four-story Training

and Demonstration Center houses the Institute's training rooms, conference hall and hostel for training participants.

3.3 Budget (in Philippine peso)

Source; Philippine Government

ITEM	2006	2005	2004
I. General administration and support services	20,280,000	19,967,000	20,041,000
II. Operations	45,288,000	42,700,000	42,781,000
TOTAL	65,568,000	62,667,000	62,822,000

3.4 Personnel

- Experts with graduation degrees 164 (109 BS, 42 MS, 13 PhD)
- Middle level technicians 20
- Administrative personnel 69
- Number of personnel in forestry related fields 96

ANNEX B - CURRICULA VITAE OF KEY STAFF

CURRICULUM VITAE FLORENCE PASCUA – SORIANO

Director

Forest Products Research and Development Institute
College, Laguna Philippines 4031

Florence Pascua – Soriano received a Bachelor of Science degree in Civil Engineering from the Saint Louis University (SLU) in 1980, completed all academic requirements of the Masters in Management Engineering course at SLU in 1984, and a non-degree course in Structural Engineering at the Katholieke Universiteit Leuven in 1985. She also completed a Graduate Diploma in Science, major in Timber Engineering from the Australian National University (ANU) in 1989 and went on to finish her Ph.D in Wood Science and Forest Products Technology in 1994 at the same university.

Dr. Soriano was a lecturer in the College of Engineering and Architecture at the SLU from 1980 to 1985, and in the Board Examinations Review School for Professional Civil Engineers in SLU. Simultaneously, she also served as a technical consultant for a private engineering firm involved in the construction of public roads and buildings.

Dr. Soriano joined the research staff of the Forest Products Research and Development Institute in November 1985. She has completed several projects on housing technologies such as a Builder's Manual on the Construction of Low-Cost School Buildings, the Development of Bamboo Joints for Typhoon-Resistant Houses and the development of a shop-fabricated emergency shelter. She was project leader of several ITTO-funded projects, namely ITTO PPD 12/96 "*Development and Implementation of Stress Grading Rules for Tropical Timber in the Philippines*" and ITTO PD 34/99 Rev. 2(1) "*Development and Implementation of Stress Grading Rules for Tropical Timber in the Philippines*". She was also the Workshop Director of PD 33/96 "*International Workshop on Nondestructive Testing of Tropical Timber*" held in Los Baños, Laguna in October 1998 and Technical Consultant for the "*Compendium of Low Cost Houses from Small Diameter Logs, Tree Tops and Branches*", published jointly by the FPRDI and ITTO in 1997. She was also Project Leader of the FPRDI-based project "*Manufacture of Low Cost Wood-Cement Composite using Australian Wood Species in the Philippines*" funded by the Australian Centre for International Agricultural Research (ACIAR). She is currently the Director of the Forest Products Research and Development Institute.

Dr. Soriano is a member of the Philippine Institute of Civil Engineers (PICE) and the Association of Structural Engineers of the Philippines (ASEP). She is currently Team Leader of the DOST Civil Engineers accredited by the Construction Industry Authority of the Philippines to evaluate contractor's performance in infrastructure projects.

CURRICULUM VITAE

MA. CECILE B. ZAMORA

Senior Science Research Specialist
Forest Products Research and Development Institute
College, Laguna Philippines 4031

Ma. Cecile B. Zamora received a Bachelor of Science degree in Forest Products Engineering and a Master of Science degree in Forestry from the University of the Philippines Los Baños in 1982 and 1989, respectively. She completed her PhD in Technology Management in 2000 at the Technological University of the Philippines.

Dr. Zamora has been part of the research staff of the Forest Products Research and Development Institute since 1983. She is currently involved in the technology transfer activities of the Institute, part of which is the assessment of training needs for the forest-based and allied industries. She was also part of the ITTO project PD 34/99 Rev. 2(1) "*Development and Implementation of Stress Grading Rules for Tropical Timber in the Philippines*" as Team Leader for the Training and Information Dissemination group.

ANNEX C - TABLE SHOWING HOW COMMENTS BY THE THIRTY-THIRD EXPERT PANEL HAVE BEEN ADDRESSED

COMMENTS/RECOMMENDATIONS	PAGE NO. IN PROPOSAL
Integrate Specific Objectives 1 and 2 to create a new Specific Objective, since the same level of research is required to achieve both objectives	Pages 5, 7
Provide further information on the sample size of the research project, in light of previous research on a builders' woodworks association conducted by the Executing Agency	Page 6
Clarify how the project will mobilize a currently unorganized group of wood workers, which are not affiliated with any industry organization	Page 6 - 7
Provide a list of literature used to support the facts in the proposal	Page 16
Adjust the ITTO's Programme Support Costs to 8% of the ITTO total contribution	Pages 13,14,15
Create a new pre-project output to account for the preparation of a project proposal	Page 7
Provide an Annex which show the recommendations of the 33 rd Expert Panel and the respective modifications in a tabular form. Modifications should be highlighted (bold and underlined) in the text.	Page 23